

CHAPTER II

PERFORMANCE REVIEWS RELATING TO GOVERNMENT COMPANIES

2.1 VISVESWARAYA VIDYUTH NIGAMA LIMITED

RENOVATION AND MODERNISATION WORKS OF HYDEL GENERATING STATIONS

Highlights

Renovation and modernisation works of Mahatma Gandhi Hydro Electric Station (MGHE) were undertaken without taking into account the cheaper cost of generation at Sharavathi Generating Station and the constraints in evacuation of power at the uprated capacity of 139.20 Mega Watt.

(Paragraphs 2.1.8 and 2.1.9)

Delay in providing winch and trolley to the contractors resulted in 23 months delay in start of work at Shivasamudram Generating Station and consequential loss of generation of 181 million units of power.

(Paragraph 2.1.12)

Leakage of water from the sluice gates 9 and 10 of Tungabhadra Dam owing to lack of maintenance resulted in loss of generation of 14.4 million units per season (July to February) at Munirabad Hydro Electric Station.

(Paragraph 2.1.15)

The Company had foregone interest subsidy of Rs.59.20 lakh (in respect of Shivasamudram) by not drawing the full amount of loan before 31 March 2002 due to delay in taking up the work. The Company paid commitment charges of Rs.68.29 lakh (MGHE and Shivasamudram) by not adhering to the drawal schedule given to Power Finance Corporation.

(Paragraph 2.1.16)

Introduction

2.1.1 The Company has been operating the following Power plants (four hydro-electric and one diesel generating station), transferred by the erstwhile Karnataka Electricity Board (KEB) in July 1999:

- Shivasamudram Generating station, Shivasamudram (installed in 1902-1938).
- Shimshapura Power House (installed in 1940).

- Mahatma Gandhi Hydro Electric Station, Jog (installed in 1948-1952).
- Munirabad Hydro Electric Station, Munirabad (installed in 1962-1965).
- Diesel Generating Plant, Yelahanka, Bangalore (installed in 1993-1994).

Renovation and modernisation (R&M) of Mahatma Gandhi Hydro Electric Station (MGHE), Shivasamudram Generating Station and Munirabad Hydro Electric Station were taken up by the erstwhile KEB. The Detailed Project Reports (DPR) for R&M works of the three Power Stations were prepared in March 1993, December 1998 and November 1999 and the work started in March 1997, October 1999 and December 2000 respectively. The works were completed between October 2002 and October 2004.

Scope of audit

2.1.2 The performance review conducted during September to December 2005 covers the conceptualization, financing and implementation of the R&M work of MGHE, Shivasamudram and Munirabad Stations and their performance after completion of renovation.

Records selected for detailed scrutiny were based on sample size. The sample size was selected on conventional judgemental sampling method based on financial materiality. Accordingly, 80 *per cent* packages (by value) of renovation and modernisation in respect of MGHE and Shivasamudram and 100 *per cent* in respect of Munirabad were covered in audit.

Audit objectives

2.1.3 Performance review of the project was conducted with a view to assess whether:

- the renovation was actually necessary and if so whether the same was carried out after detailed study of various aspects and in a planned manner;
- the works were carried out as contemplated in the DPR, as per schedule, and whether the deviations were justified;
- renovation and modernisation of the three hydel power stations was carried out economically and efficiently;
- borrowed funds were drawn and utilised in an effective manner; and
- the performance of the Stations after renovation was as per the projections in DPR.

Audit criteria

2.1.4 Audit criteria considered for assessing the achievement of audit objectives were:

- DPRs of the three hydel power stations;
- Prescribed procedures and rules for award of works, directions issued by the Board of Directors (BOD), Government orders, etc.;
- Agreements with Financial Institutions and other lending agencies for borrowing of funds; and
- Power generation norms, Central Electricity Authority (CEA) guidelines, etc.

Audit methodology

2.1.5 The methodology adopted for attaining the audit objectives with reference to the audit criteria were examination of:

- Minutes of the BODs and related Minutes of the BODs of Karnataka Power Corporation Limited (KPCL), Government Orders, Contract Management Group proceedings and guidelines from CEA;
- DPRs of the three hydel power stations;
- Major renovation and maintenance contract files, running account bills of contractors, loan and financial arrangement files/records;
- Power generation details, progress reports etc.;
- Inspection notes of Chief Engineers, Electrical and Civil and other competent authorities; and
- Issue of audit enquiries and interaction with the Management.

Audit findings

2.1.6 Audit findings, emerging as a result of test check were reported to the Company / Government in March 2006 and discussed in the meeting of Audit Review Committee on Public Sector Enterprises (ARCPSE) held on 12 September 2006. The meeting was attended by the Principal Secretary to the Government of Karnataka, Energy Department and Managing Director of the Company. The views expressed in the meeting by the representatives of the Company / Government have been taken into consideration while finalising the review.

The details of capacity, cost of renovation and modernisation of the three generating stations are as under:

Generating station	Installed capacity	Derated capacity	Anticipated capacity after renovation / modernisation	Initial estimated cost (date)	Revised estimated cost	Actual cost
	Mega Watt (MW)			Rs. in crore		
MGHE	120	70	139.20	33.90 (March 1993)	44.66 (October 2000)	43.07
Shivasamudram Generating Station	42	18	42	68.38 (December 1998)	74.77 (June 2001 to October 2003)	74.06
Munirabad Hydro Electric Station	28	Only technical problems	28	3.64 (November 1999)	Not revised	3.53

Audit findings (Project wise) are discussed in the succeeding paragraphs:

Mahatma Gandhi Hydro Electric Station (MGHE)

2.1.7 MGHE (installed capacity of 120 MW) generates power using rainwater during the season and leakage/seepage water from the channels of Linganamakki dam during non-season. The water from the dam also passes through a power channel of designed capacity of 5,500 cusecs (constructed prior to 1964) and an Additional Water Conducting System (AWCS) to Sharavathi Generating Station (situated down stream of MGHE station). The old power channel had developed cracks and damages leading to water leakage (about 200 cusecs) into the Sharavathi river and water also escapes through the gates (50-70 cusecs) of Lingannamakki dam. This water is impounded at Kargal anicut¹ and the same is conducted through a power channel to MGHE through penstocks and is used for generation. The schematic diagram of MGHE is given alongside.

Due to ageing, the powerhouse was derated from 120 MW to 70 MW. A DPR for R&M was prepared and sent to the Central Electricity Authority in March 1993. A joint team² examined the same in October 1993. Based on the team's recommendations, the DPR was revised and approved (June 1995) by the Karnataka Electricity Board for Rs.44.66 crore. The R&M works commenced in March 1997 after a delay of about two years. Out of 25 purchase orders valued at Rs.43.07 crore relating to this Project, Audit reviewed eight purchase orders valued at Rs.36.73 crore, the details of which are given in **Annexure -8**.

¹ Anicut is bund to stop/rebound water.

² Central Electricity Authority, Karnataka Electricity Board, Bharat Heavy Electricals Limited and Power Finance Corporation Limited.

Audit scrutiny revealed the following:

Higher utilisation of water

Renovation and modernisation works of Mahatma Gandhi Hydro Electric Station (MGHE) were undertaken without taking into the account cheaper cost of generation at Sharavathi Generating Station and the constraints in evacuation of power at the uprated capacity of 139.20 MW etc.

2.1.8 The Company was aware that MGHE requires 12 cusecs of water to produce one million units of power as against nine cusecs required by Sharavathi Generating Station situated down stream. This made the production cost of power cheaper at Sharavathi Generating Station as compared to MGHE. In view of the above, the Company should have undertaken a cost-benefit analysis before deciding to take up the R&M works at MGHE. Thus, the R&M works at MGHE were undertaken without taking into account the cost of generation of power at MGHE, which was higher as compared to the cost of generation at Sharavathi Generating Station.

Evacuation constraints of power produced

2.1.9 There are six transmission lines (110 KV) connected to out door yard of MGHE which transmits power to various areas as discussed below:

- Two transmission lines (5 MW) cater to Jog colony of MGHE.
- Another two transmission lines having maximum load of 80 MW, carry 55 MW power generated at Linganamakki Power House (LPH). The generation at LPH cannot be reduced as the water released for generation is routed through a canal for further generation of power at Sharavathi Generating Station. Thus, the remaining capacity of 25 MW only was available for evacuation of power from MGHE.
- The remaining two transmission lines can carry only 15 MW of power produced by MGHE.

It was, thus, possible to evacuate 45 MW only, a constraint which was also not taken into account before deciding to take up the R&M works.

The Government, while accepting the audit observation stated (April 2006) that the issue of evacuation of power had been taken up with Karnataka Power Transmission Corporation Limited (KPTCL), who had prepared a comprehensive plan for the evacuation system. The Government also stated that maintaining MGHE in good condition was essential as it could be used as a peaking station and the State could get the benefits of higher tariff or avoid import of costly power. The reply is not tenable as MGHE was already being used as a peaking station after installation of Sharavathi Generating Station. Also, even if it produces power continuously at the uprated capacity of 139.20 MW, only 45 MW can be evacuated with the existing infrastructure.

Replacement of penstock protection valves

2.1.10 The Company awarded the work of supply, erection and commissioning of hydraulic equipments to VA Tech (firm) at a price of Rs.24.40 crore. One of the components of the work was replacement of

penstock protection valves and installation of an ultrasonic over-velocity detection device. The device was designed to automatically trip the valve if high velocity was detected.

It was noticed in audit that though the R&M works were completed by October 2002, supply and commissioning of over-velocity detection devices were not done (April 2006). Consequently, the valve tripping mechanism was not put to use exposing the penstocks to risk.

The Government stated (April 2006) that one penstock protection valve (out of four) installed in March 2001 was damaged due to lightning and the firm had agreed to replace the same shortly. It further stated that the final bill of the firm would be settled after satisfactory replacement. The reply is not acceptable as the replacement is yet to be done and the penstocks continue to be exposed to risk due to non-installation of the devices even after five years.

Shivasamudram Generating Station

2.1.11 Shivasamudram Generating Station had an installed capacity of 42 MW. Due to ageing, the station was derated to 18 MW. Further, the station generated power at 25 hertz frequency. After meeting the local power requirements of 10 MW the balance was converted to 50 hertz (National Standard) and transmitted to Bangalore/Mysore cities. It was decided to uprate the station to its installed capacity and convert it into a station with 50 hertz transmission. A DPR was prepared (December 1998) and works were undertaken in October 1999 with scheduled completion by April 2002. Out of 20 purchase orders valued at Rs.74.06 crore, Audit reviewed eight purchase orders valued at Rs.69.72 crore, the details of which are given in **Annexure-8**. The schematic diagram of Shivasamudram is given overleaf.

Audit scrutiny revealed the following:

Delay in completion of work

2.1.12 The project was completed in October 2004 after a delay of 27 months. This was due to initial delay of 23 months in taking up the work. Audit scrutiny revealed that the delay was due to failure of the Company to provide 30 tonne winch with trolley for transportation of equipment/materials from surface to powerhouse as per terms of the purchase order.

The Company hired a winch and trolley of 50 tonne capacity at a cost of Rs.12.78 lakh in February 2001. The delay in hiring the winch and trolley resulted in loss of generation of power of 181 million units valued at Rs.18.27³ crore.

Delay in providing winch and trolley to the contractors resulted in 23 months delay in start of work at Shivasamudram Generating Station and consequential loss of generation of 181 million units of power.

³ calculated for 27 months delay based on Tariff Design Energy (10 per cent plant load factor utilisation as directed by State Regulatory Commission).

The Government while accepting that there was delay of 23 months stated in their reply (April 2006) that they depended on Atria Power Corporation (APC), an independent power producer who had agreed (1998) to allow the Company to use their rail track and winch for transportation of material after strengthening of the same. The reply is not acceptable as no date was specified in the agreement with APC for strengthening of rail track and supply of winch. The Company should have considered immediate alternate arrangements for hiring of winch and trolley in view of loss of generation of power.

Non-sharing of infrastructure expenditure

2.1.13 As a part of R&M works, the remodeling of power channel and water conducting system of the Shiva channel (leading to generating station) was envisaged. The said work was completed in March 2002 at a total cost of Rs.12.92 crore.

Audit scrutiny revealed that the benefit of this work was also to accrue to other agencies like Shimsa Generating Station, Bangalore Water Supply and Sewerage Board (BWSSB), APC and Cauvery Hydro Electric Limited (CHEL) also. No action was, however, taken to recover the proportionate share of cost from these beneficiaries.

The Government stated (April 2006) that correspondence was on with BWSSB on cost sharing and that APC and CHEL were willing to share cost provided water supply to their stations was assured. The reply is not acceptable as the Management failed to enter into an agreement with the beneficiaries before start of the work. The reply is also silent on a timeframe for entering into agreements with the users in this regard.

Munirabad Hydro Electric Station (MHES)

2.1.14 The MHES, with an installed capacity of 28 MW, utilizes the water let-out for irrigation through Left Bank Canal of Tungabhadra dam for power generation. A DPR was prepared (November 1999) to overhaul and modernise the station. Audit reviewed the major purchase orders (two orders) valued at Rs.3.40 crore out of total project cost of Rs.3.53 crore (two orders and some minor repair works), the details of which are given in **Annexure -8**.

Audit scrutiny revealed the following:

Loss of generation due to leakage through intake sluice gates

2.1.15 The Tungabhadra dam has 10 sluice gates for discharge of water for irrigation. Water from sluice gates 1 to 8 passes through the generating station producing 28 MW. When the generating units are not operational sluice gates 9 and 10 (bypass gates) are used to let out water for irrigation.

It was noticed in audit that there was continuous leakage of water through gates 9 and 10 owing to lack of maintenance by the Irrigation Department since January 2002.

Leakage of water from the sluice gates 9 and 10 of Tungabhadra Dam owing to lack of maintenance resulted in loss of generation of 14.4 million units per season (July to February) at Munirabad Hydro Electric Station.

This resulted in loss of power generation of 14.4 million units valuing Rs.79.20 lakh⁴ per season (July to February). The Government stated (September 2006) that the Irrigation Department had carried out (April 2006) the repairs. The fact remains that the repairs were not carried out for a period of four years (2002-2006).

Project financing

2.1.16 The Power Finance Corporation Limited (PFC) financed Rs.73.32 crore out of total estimated cost of Rs.116.60 crore of R&M works. The loan was released on submission of supplies and erection bills as per schedule laid down. Further, the Government of India under the Accelerated Generation and Supply Programme extended interest subsidy of four *per cent* on the loans sanctioned by the PFC. The subsidy was available for drawals upto 31 March 2002 only (end of IX Plan period). The station-wise fund management details are given below:

Generating Station	Estimated cost	Loan sanctioned by PFC	Date of sanction	Loan released upto 31.3.2002	Shortfall in committed drawal before 31.3.2002	Drawn after 31.3.2002	Date of completion of work
	Rs. in crore			Rs. in crore			
MGHE	44.66	23.50	9.11.1995	23.50	-	-	October 2002
Shivasamudram Generating station	68.38	48.00	19.4.1999	33.20	7.18	14.80	October 2004
Munirabad Hydro Electric Station	3.56	1.82	22.5.2001	1.82	-	-	October 2002
TOTAL	116.60	73.32		58.52	7.18	14.80	

In this connection it was noticed during audit that:

- the Company did not draw the full amount of loan of Rs.48 crore in respect of Shivasamudram foregoing a subsidy of Rs.59.20 lakh relating to undrawn loan of Rs.14.80 crore. This was attributable to delay of 23 months in starting the work as discussed in **paragraph 2.1.12**. The Government accepted (April 2006) the audit observation.
- the Company did not adhere to the schedule of drawal given by PFC even after two revisions resulting in payment of commitment charges of Rs.68.92 lakh (Rs.41.57 lakh in respect of MGHE and Rs.27.35 lakh in respect of Shivasamudram Generating Station). The Government accepted (April 2006) the audit observation.

⁴ calculated based on Executive Engineer's (Electrical) letter dated 14.10.2005 to Chief Engineer (Irrigation Department) for 14.40 million units at Rs.0.55 per unit.

Performance of generating stations after modernisation

2.1.17 The capacity of MGHE was updated to 139.20 MWs, the installed capacity of Shivasamudram was restored (42 MWs) and the technical problems in Munnirabad were set right as indicated in the DPR. The table below indicates the year wise details of generation of power in each of the three generating stations during pre-renovation and post-renovation periods:

Station	Status	Period	Average generation during the period	
			(million units)	MW
MGHE	Pre-renovation	1990-1997	379	43.26
	During renovation	1998-2002	98	11.18
	Post renovation	2003-2005	156	17.80
Sivasamudram	Pre-renovation	1990-1999	115	13.13
	During renovation	2000-2003	58	6.62
	Post renovation	2004-2005	192	21.91
Munirabad	Pre-renovation	1990-1999	92	10.50
	During renovation	2000-2002	82	9.36
	Post renovation	2003-2005	52	5.94

From the table it can be observed that

- the generation at MGHE during the post-renovation period was less than its generation during the pre-renovation period due to evacuation constraints as stated in **paragraph 2.1.9**.
- Shivasamudram achieved targets of generation of energy of 180 million units.
- in respect of Munirabad, the generation is based on availability of water after use for irrigation purposes.

Acknowledgement

Audit acknowledges the co-operation and assistance extended by the staff and the Management of the Company and officers of the Government at various stages of conducting the performance review.

Conclusion

Renovation and Modernisation works of MGHE were undertaken without taking into account the cheaper cost of generation at Sharavathi Generating Station and constraints in evacuation of power at the uprated capacity of 139.20 MW. The Company failed to provide winch and trolley in time leading to abnormal delay in completion of works at Shivasamudram Generating Station. Non-maintenance of sluice gates at Munirabad Hydro Electric Station resulted in loss of generation. The Company failed to draw the full amount of loan due to delay in the completion of work and consequently forgoing subsidy.

Recommendations

- **The Company should undertake the R&M works of its Power Stations in future only after conducting a cost-benefit analysis of the project.**
- **The Company should provide the infrastructure facilities for the execution of work in time to avoid delay in execution.**
- **The Company should co-ordinate with other agencies to enhance the evacuation facilities at MGHE to avail the full benefit of uprated capacity of 139.20 MW.**

2.2 KARNATAKA STATE AGRO-CORN PRODUCTS LIMITED

MANUFACTURE AND DISTRIBUTION OF ENERGY FOOD

Highlights

The Company set up (1979-1987) five energy food production units in Karnataka to meet the entire requirement of energy food for the children and lactating mothers under the nutritional program of the Government of Karnataka.

(Paragraph 2.2.1)

The actual production decreased drastically from 2003-04 onwards due to diversion of 50 per cent of the requirement of energy food to a private party by Department of Women and Child Development (DWCD). Failure to diversify its product range and the continued dependence on DWCD, which was diverting the orders to a private party, has affected the very existence of the Company.

(Paragraphs 2.2.7 and 2.2.17)

Non-following of the prescribed nutritional formula in the manufacture of energy food and using cheaper ingredients resulted in saving in cost but compromised the nutritional balance of energy food supplied to children and lactating mothers.

(Paragraph 2.2.12)

The Quality control system prevalent in the Company was not effective as the quality tests in its laboratories were carried out by unqualified personnel.

(Paragraph 2.2.16)

Introduction

2.2.1 The Karnataka State Agro-Corn Products Limited (KSACPL) was incorporated in April 1973. The objectives of the Company *inter-alia* included establishing mills and factories for producing edible and non-edible products.

The Government of Karnataka (GOK) with the assistance of United Nations Children's Fund (UNICEF) introduced (1975) a scheme to provide low cost nutritionally balanced and acceptable formulated flours from indigenous raw materials of high nutritive value for distribution to children and lactating mothers. This supplementary nutritional programme is implemented under Integrated Child Development Scheme (ICDS).

The Company set up (1979 to 1987) five production units at Doddaballapur, Mysore, Chitradurga, Raichur and Belgaum to manufacture the Amylase Rich Energy Food (AREF/energy food). The technical consultancy was to be provided by Central Food Technological Research Institute, Mysore (CFTRI). The GOK had funded the entire cost of the project with UNICEF aid and undertaken to purchase the entire quantity of energy food required for implementation of the project from the Company.

The present activities of the Company are mainly confined to production of energy food, which constitutes approximately 90 *per cent* of the gross revenue.

The working of the Company was last reviewed and reported in the Report of the Comptroller and Auditor General of India (Commercial) for the year 1995-96. The Report was discussed by Committee on Public Undertakings in September 1997.

Scope of audit

2.2.2 The performance review conducted during August and September 2006 covers the performance of manufacture and distribution of energy food by the Company during 2001-2006. The records of the Head Office and its production units at Chitradurga, Belgaum and Raichur were reviewed.

Audit objectives

2.2.3 The performance review was conducted to ascertain whether:

- the facilities established for production of energy food were utilised to the optimum level and wastages were within the norms;
- the objective of establishing the units for providing low cost balanced and highly nutritive value food was achieved;
- the planning for procurement of raw materials and supply of finished product at competitive rate was adequate;
- the quality of the product was adequate and consistent with the norms of the Government/CFTRI;
- the Company had explored the possibilities for expanding its market share for energy food and diversification, as reported by the Government in response to the earlier report of Comptroller and Auditor General of India (Commercial) for the year 1995-96; and
- the system of supply, billing, recovery and internal controls were adequate;

Audit criteria

2.2.4 Audit criteria considered for assessing the achievement of audit objectives were:

- Government orders/instructions;
- The norms fixed by the Management for production and wastage;
- The norms fixed by the Government/CFTRI with regard to quality and composition;
- The targeted beneficiaries in the State, the market potential for energy food ;
- The rates approved by the Government for supply of energy food; and
- The schedules of supply fixed by the indenting department.

Audit methodology

2.2.5 The methodology adopted for attaining the audit objectives with reference to the audit criteria were:

- review of Board minutes, Government orders, correspondence with CFTRI and Department of Women and Child Development;
- review of purchase order files, sales records;
- records relating to actual production, wastage, usage of materials with reference to the standards;
- test check of internal control system; and
- issue of Audit observations and interaction with the Management.

Audit findings

2.2.6 Audit findings arising from performance review were reported to the Company/Government in September/October 2006 and discussed in the meeting of Audit Review Committee on Public Sector Enterprises (ARCPSE) held on 6 October 2006. The meeting was attended by the Under Secretary to the Government of Karnataka, Agriculture Department and Managing Director of the Company. The views expressed in the meeting by the representatives of the Company/Government have been taken into consideration while finalising the review.

Production Performance

Utilisation of production capacity

2.2.7 The five production units of the Company were started exclusively to serve the supplementary nutritional programme under ICDS. The Department of Women and Child Development (DWCD) places periodical indents on the

Company for supply of energy food. The total installed capacity available with the Company is 32,900 MT. The details of actual quantity produced and supplied by the Company to the DWCD during the last five years are given below:

(Quantity produced in Metric Tonnes and capacity utilised in per cent)

Name of the unit	2001-02		2002-03		2003-04		2004-05		2005-06	
	Quantity produced and supplied	Capacity utilised	Quantity produced and supplied	Capacity utilised	Quantity produced and supplied	Capacity utilised	Quantity produced and supplied	Capacity utilised	Quantity produced and supplied	Capacity utilised
Belgaum	7,868	116	6,995	103	2,494	37	3,322	49	3,564	52
Chitradurga	7,623	147	7,954	131	2,799	46	2,307	38	2,725	45
Doddaballpur	7,123	89	7,070	88	3,277	41	3,179	40	2,806	35
Mysore	6,791	112	6,389	106	2,721	45	3,153	52	3,007	50
Raichur	6,859	100	8,618	125	2,731	40	2,210	32	2,907	42
Total	36,264	108	37,026	110	14,022	42	14,171	42	15,009	44

The actual production reduced drastically from 2003-04 onwards due to diversion of 50 per cent orders to a private party by DWCD, which affected the very existence of the Company.

It could be seen from the above details that during 2001-03 the production and supply of energy food was more than the capacity available with the company. Subsequently, from 2003-04 onwards the capacity utilisation declined drastically to 42 to 44 per cent only. The main reason for this decline was the restriction of the role of the Company for supply of energy food to 13 districts (out of 27 districts) only from the earlier role of it being the only supplier for the whole State. The supply of energy food for other districts was entrusted to a private party by DWCD on the plea that it was required to invite competitive tenders for the purchases under the Karnataka Transparency in Public Procurements Act.

It is pertinent to mention that the Government while setting up the five units under the Company for manufacture of energy food to implement its nutritional programme had agreed to purchase the entire quantity of energy food manufactured by these units. This was also reiterated subsequently in a Legislative Annual Report (January 1997) and in the proceedings of a meeting (June 2004) taken by the Chief Minister for reviewing the operations of the Company.

Due to change in policy of procurement by the DWCD, the sales of energy food reduced from Rs.62.03 crore in 2001-02 to Rs.29.87 crore in 2005-06. Since the Government is the sole indenter of energy food and it represents 90 per cent of the total turnover, the diversion of orders has affected the very existence of the Company.

The Management accepted (September 2006) the audit observation and stated that there was no positive response from DWCD.

Loss of production due to cancellation of shifts

2.2.8 It was noticed in audit that a large number of shifts were cancelled in production units mainly for want of indents and raw materials. This led to loss of production, under-utilisation of resources and consequent payment of idle

wages. A review of the three production units at Chitradurga, Belgaum and Raichur revealed that:

- during last five years, 12 *per cent* of the shifts (1,163 out of 9,800) planned were cancelled due to non-availability of raw materials and indents. During the years 2002-03 and 2003-04, 692 and 320 shifts respectively were cancelled due to non-availability of raw material, indicating poor material planning.
- during the period 2003-06, the planning of shifts was reduced by one third. Even out of the planned shifts of 2,236 during 2004-05 and 2005-06, number of shifts cancelled due to non-availability of indents were 281 representing 12.60 *per cent* of the shifts.

This indicated the poor follow up of the Company with DWCD for indents and non-synchronisation of raw material purchases.

Wastage

2.2.9 The process wastage in production of energy food during last five years up to 2005-06 was as follows:

Name of the unit	2001-02	2002-03	2003-04	2004-05	2005-06
	<i>wastage in per cent</i>				
Belgaum	6.65	6.82	6.82	4.87	4.65
Chitradurga	5.50	5.85	4.91	4.29	4.58
Doddballapur	6.20	7.40	4.81	5.00	3.95
Mysore	5.99	NA	5.49	4.92	4.44
Raichur	6.43	6.14	5.84	4.29	4.10
Average	6.15	5.24	5.57	4.67	4.34

It can be seen from the above table that the wastage was not only inconsistent within the same units but that there were wide variations amongst the units, ranging from 3.95 to 7.40 *per cent*. The Company has, however, not fixed any norm for wastage even though this is very vital in a manufacturing unit.

The Government agreed in the ARCPSE meeting to fix the wastage norms.

Payment of production incentive

2.2.10 As per the group incentive plan applicable for energy food division from April 1991, the standard production norms were fixed at six metric tonne with 22 workers per shift. Subsequently in 2000-01, the Company installed new automated machinery (wheat roaster with conveyor, air attrition mill etc.). The Company, however, did not increase the standard production norms after automation. Test check by audit in the three units at Chitradurga, Belgaum and Raichur indicated that though the capacity of the plants was increased and higher production was achieved, the Company paid incentive of Rs.40.29 lakh during 2001-02 and 2002-03 based on old production norms.

The Management stated (October 2006) that due to delayed receipt of indents from DWCD the company was forced to pay incentives to achieve the production in time. It was further stated that the norms have been revised to nine metric tonne with 14 workers per shift with effect from 2004.

Non-installation of Auger filling and continuous bag sealing machine

2.2.11 As a part of improvement in quality, hygienic standard and efficient packing in the manufacture of energy food, it was proposed (March 2001) to equip each of the energy food units with fully automatic weighing and auger filling system (with continuous bag sealing machine) with potential savings of Rs.24 lakh per annum. No action was, however, taken to install the machines as the prices quoted by the vendors were too high (Rs.12 lakh) as compared to estimated cost of Rs.2.30 lakh. Failure to install the machines resulted in the company not being able to improve quality and hygienic standards, besides it being deprived of the potential savings.

The Management stated (October 2006) that action would be taken to install the machine.

Nutritional formula in manufacture of energy food

Non-following of the prescribed nutritional formula in the manufacture of energy food and using cheaper ingredients resulted in saving in cost but compromised the nutritional balance of energy food supplied to children and lactating mothers.

2.2.12 As per the supplementary nutrition programme of ICDS, energy food worth Rs. 1.50 per child and Rupees three per lactating mother has to be supplied to DWCD. The programme of feeding is six days a week for 0-3 years old child, two days a week for 3-6 years old child and for lactating mothers. Further, the CFTRI prescribed the formula for the nutritional content/mix of the energy food. During April 2003, the DWCD changed the composition given by CFTRI and introduced sugar in place of jaggery. The composition prescribed by CFTRI and DWCD are given below.

Ingredient (units)	CFTRI	DWCD
Wheat	53	35
Defatted soya flour	13	17
Soya	5	5
Bengal gram	5	5
Jaggery/Sugar	35	32
CaCO ₃ , FeSO ₄ and Vitamin Premix	1	1
Malted Ragi	-	5-10
Total Units	112	100

It was observed by audit that the Company neither followed the composition of CFTRI nor of DWCD and instead manufactured energy food by varying the formula. The Company replaced soya /Bengal gram / soya flour with more quantity of wheat. This resulted in saving of cost by Rs.9.47 crore (for five years up to 2005-06) to the Company but this compromised the nutritional balance of the energy food supplied to children and lactating mothers.

Similarly, the Company mixed vitamin premix at 0.1 *per cent* as against one *per cent* prescribed by the CFTRI and DWCD resulting in savings of Rs.11.27 crore for the last three years (2003-2006). This, however, diluted the quality of energy food and did not supplement the desired nutritional value of vitamins, proteins, minerals and carbohydrates.

The Management stated (October 2006) that the specific nutritional requirement had been met in its supplies. The reply is not tenable as the CFTRI/DWCD has specifically prescribed the input contents as given in table above apart from specific nutritional requirement⁵ and the change in the composition would not have been able to meet these specific nutritional requirements

Procurement of raw material

Allotment of wheat

2.2.13 The main ingredient of the energy food manufactured by the Company is wheat. In order to reduce the cost, the DWCD allots wheat (through Food Corporation of India-FCI) to the Company at Below Poverty Line (BPL) rates. A review of procurement of wheat revealed that there was no system in the Company/Department to determine the exact quantity of wheat required and there was delay in allotment of wheat by the DWCD (i.e. requirement of 2004-05 was allotted in August 2004; of 2005-06 in July 2005).

Purchase of sugar in open market

2.2.14 The Company is being allotted wheat by DWCD at Below Poverty Line rate, which in turn has helped in reducing the cost of energy food. The Company, however, purchases sugar from the open market. Even though 13,633 MT of sugar costing Rs.21.05 crore was consumed during the last three years, no efforts were made for allotment of sugar under the Public Distribution System, which could have brought down the cost of energy food by Rupees one crore per annum at current levels of cost (computed with reference to difference between the market price and the public distribution system price).

The Management stated (October 2006) that Department of Food and Civil Supplies had turned down the request as sugar is a controlled commodity and the matter would now be taken up with the Government.

Inter unit raw-material transfers

2.2.15 The requirement of each production unit was not properly assessed resulting in inter-unit transfers. Test check of the records at Chitradurga, Belgaum and Raichur units revealed that a total of 3,025.68 MT (for five years up to 2005-06) of raw material was transferred from and to these units resulting in extra expenditure of Rs.9.08 lakh (at Rs.300 per MT) on

⁵ Protein (15-16 gram); calories (372-380 Kcal); crude fibre (2.5gram); iron (4.6mg) phosphorous (0.8mg); thaimin (0.8mg); raboflavin (0.8mg); naicin (6mg); vitamin A (1,500-2,000 units); vitamin B12 (0.4 Ug).

transportation. The Management stated (October 2006) that inter unit transfers were necessitated due to lorry strikes, rains and unwillingness of suppliers to supply to certain units. The reply confirms the audit observation of lack of proper procurement planning.

Quality control

2.2.16 As per the accepted procedures, the raw materials and finished products are to be tested for quality under specified norms. The Company has its own laboratory at each plant. A review of the quality system revealed that:

- lab assistants without the required qualifications were conducting the chemical analysis and furnishing reports;
- though the Company issued general instructions for physical inspection, laboratory testing of raw materials and ingredients, the same was not conducted in the production units by qualified technicians;
- the guidelines issued by the management required highest cleaning standards viz., cleaning of stores and surrounding areas. There were, however, no records to show that hygienic standards were maintained;
- the Board observed (in 1997) that the raw materials were not meeting the specifications prescribed under the Prevention of Food Adulteration Act and suggested for reduction in prices depending on variations. Accordingly, the Company is accepting raw materials not meeting the specification, by recovering for deviations from the suppliers;

The Quality control system prevalent in the Company was not effective as the quality tests in its laboratories were carried out by unqualified personnel.

The Management stated that some of the units had qualified personnel while the other units had experienced staff in quality control. The reply is not acceptable as except for Doddaballapur unit, the other quality control personnel did not satisfy the educational qualification prescribed in the rules of the Company.

Marketing and pricing of energy food

2.2.17 In response to an observation by the Comptroller and Auditor General of India in the Audit Report (Commercial) of 1996 that the Company should not depend solely on Government for sale of its products as this would lead to a crisis in the event of withdrawal of captive Government business, it was replied that the Company was trying to diversify its product range. The Company, however, did not take any action to diversify and continued to depend on the Government. Meanwhile, the DWCD decided to procure 50 per cent of its requirement from the open market from 2003-04 onwards. The Company is now faced with the reality of excess capacity and no alternate buyers for its products, which has affected the very existence of the Company.

Failure to diversify its product range and the continued dependence on DWCD, which was diverting the orders to a private party, has affected the very existence of the Company.

2.2.18 It was noticed in audit that after deciding to procure 50 per cent from the market, DWCD procured energy food from a private party by calling for tenders. The offer of the Company for supply under the open tender of 2003-04 was rejected on the ground that it did not have ISO Certification. The bid of the company in the open tender for 2005-06 was rejected on the grounds of non-availability of protein efficiency ratio and less shelf life. The Department, however, directed the Company to supply the energy food to 13 districts covering balance 50 per cent of the requirement. The action of the Department in rejecting the offer of the Company on the basis of quality on one hand and on the other hand allowing it to supply the balance 50 per cent requirement was inconsistent and intriguing.

2.2.19 It was also noticed that the Company participated (January 2003) in the open tender of DWCD by quoting a rate of Rs.19.89 per Kilogram (Kg) for the energy food requirement from October 2003 to March 2005. The bid of the Company was not opened on the ground that the Company was not ISO certified (a tender condition). The DWCD placed (September 2003) the order on a private firm Christy Fried Gram Industries, Tamil Nadu at Rs.21.67 per Kg (inclusive of taxes). It is interesting to note that the Company was supplying its share of energy food to DWCD at Rs.18.30 per Kg (inclusive of taxes) and was earning profit. Thus, DWCD incurred an additional expenditure of Rs.9.43 crore⁶ while the production facilities of Company remained under-utilised.

Further, during May 2005 the DWCD called for open tenders for its energy food requirement of September 2005 to August 2006. The Company participated by quoting a rate of Rs.24.60 per Kg. (inclusive of taxes). DWCD, however, awarded the order to Christy Fried Gram Industries, at Rs.25.20 per Kg (inclusive of taxes) by rejecting the offer of the Company on the grounds of non-availability of protein efficiency ratio and shelf life certificates. Thus, in spite of the Company having quoted lower rates, the DWCD is now forced to pay both the private party and the Company a rate of Rs.25.20 per Kg.

The Management stated (October 2006) that the condition of ISO certification was hitherto not specified by DWCD and it could not obtain certification in the short time before quoting for the 2003-04 tender. Once the Company was ready with the ISO certification for the 2005-06 tender, the condition of protein efficiency and shelf life was introduced by DWCD in the tender and it was not prepared for the same as it was neither an industry standard nor advised by CFTRI. In the ARCPSE meeting the Government stated that DWCD is required to invite competitive tenders for the purchase under the Karnataka Transparency in Public Procurements Act (the Act) and that the orders for 50 per cent of the requirement was being placed on the Company after obtaining exemption under Section 4(G) of the Act from time to time, on short term basis, and that the Company would approach the Government for a permanent exemption from the provisions of the Act for obtaining order for the entire requirement.

⁶ **Rs.21.67-Rs.18.30 = Rs.3.37 x 28,000 MT (approximate) for period October 2003 to August 2005.**

Pricing

2.2.20 At the time of formulation of energy food production units, the State Government had undertaken to procure the entire requirement of energy food from the Company and approved pricing of the product in such a manner so that the Company should earn five *per cent* profit on the cost of energy food. For this purpose, the Company was furnishing the cost data to the Government from time to time.

A review of pricing of energy food products revealed that the company was earning profits ranging from 4.57 *per cent* to 40.53 *per cent* during 2002-03 to 2005-06, thereby indicating that the profit earned was very high compared to the laid down policy of the Government. This was mainly due to substitution of cheaper ingredients in the manufacture of energy food as brought out in **paragraph 2.2.12**. The Management stated (October 2006) that higher profits in earlier years were due to higher volume of orders. The reply is not acceptable as it was the substitution of ingredients that had contributed substantially to higher profit margins.

Accumulation of Sundry Debtors

2.2.21 The supply of energy food is made only to DWCD represented by Child Development Program Officers (CDPO). The outstanding dues from DWCD had accumulated to Rs.17.68 crore as on March 2006 and related to the period from 1997 onwards. The Management stated (October 2006) that efforts were being made to recover the dues.

A review of the outstanding dues from the Department revealed the following:

- There was no agreement with the Department at the apex level or with the units for supply and payment.
- Under the existing system, CDPOs are to make payment out of budgetary grants provided by the Government, which are not sufficient to meet the accumulated arrears. There is a need to pursue the issue at the highest level for provision of adequate funds in the budget of CDPOs so that they may clear the outstanding dues of the company.
- An amount of Rs.1.26 crore was due from those districts where the Company had stopped supplies from 2003 onwards and as such chances of recovery of these dues are remote.

2.2.22 The Government had advanced (2002) an amount of Rs.45 crore for supply of energy food under the supplementary nutritional scheme. The Company invested this amount in term deposits and earned interest of Rs.1.87 crore. Subsequently, the Government recovered the entire interest income on the ground that the investment of the funds was in violation of the Government orders. It is pertinent to mention that while on one hand the dues of the Company were held up with the Government indefinitely due to non-

availability of budgetary grants, on the other hand it had to surrender the interest earned on advances.

Internal Control system

2.2.23 A review of internal controls in the company revealed that:

- Budgets for 2003-04, 2004-05 and 2005-06 were prepared three to five months after commencement of the financial year and were submitted to the Board of Directors but there was no record/resolution regarding its approval by the BODs.
- The officer representing DWCD has not been nominated to the Board since September 2005 by the Government.
- There was poor control in the recording and follow up of indents received from Child Development Officers of the DWCD. Audit scrutiny revealed that the original indents were not available in most of the cases in the units audited. There was delay in supply of energy food ranging from five to 40 days by Belgaum and Raichur units during 2002-2006. The non-supply of energy food within the stipulated period resulted in cancellation of orders for 1,884 MT of energy food and consequent loss of revenue of Rs.3.43 crore to the company during 2002-2006.
- The Company had no system with regard to recording of bills paid with acknowledgements and maintenance of party wise ledgers at the head office. This had led to double payment of Rs.18.76 lakh towards supplies (as reported during 2003-04 by the Statutory Auditors).

Inadequate Internal Audit

2.2.24 In spite of comments by the Statutory Auditors on inadequate coverage of internal audit in the areas of production, vouching, statutory payments, collection and remittance of taxes, delegation of powers, costing, the Company is yet to comply with the requirement. The Management stated (October 2006) that a firm of Chartered Accountants was being entrusted with internal audit to cover these areas.

Acknowledgement

Audit acknowledges the co-operation and assistance extended by the staff and the Management of the Company and officers of the Government at various stages of conducting the performance review.

Conclusion

The Company's production units for energy food were established by the Government to provide low cost nutritionally balanced energy food to cater to identified beneficiaries. The facilities created had remained grossly underutilised due to diversion of orders by the DWCD to a private party. The Company did not follow the prescribed nutritional formula in the manufacture of energy food. Substitution of cheaper ingredients in the manufacture of energy food resulted in saving in the cost but compromised the nutritional balance of energy food supplied to children and lactating mothers. Failure to diversify its product range and the continued dependence on DWCD, which was diverting the orders to a private party, has affected the very existence of the Company.

Recommendations

- Concerted efforts should be made at the highest level to ensure the award of orders to the Company for the entire requirement of energy food to make full utilisation of the facilities.
- The Company should strictly adhere to the specified composition of raw materials in manufacture of energy food to ensure nutritional balance and should ensure quality control.
- The Company should diversify its product range so as to utilise its resources to the full extent.

2.3 THE MYSORE PAPER MILLS LIMITED

INFORMATION TECHNOLOGY SYSTEMS - APPLICATION AND GENERAL CONTROLS

Highlights

Lack of key controls rendered the pay roll package vulnerable to risk of incorrect payments.

(Paragraph 2.3.9)

Lack of key controls exposed the Main Accounts system to risk of incorrect and inaccurate reports being submitted for management decisions.

(Paragraph 2.3.10)

A strong system of physical and logical access control did not exist in the company.

(Paragraph 2.3.11)

There was no well developed business continuity plan to take care of IT assets in case of disasters.

(Paragraph 2.3.12)

Introduction

2.3.1 The Mysore Paper Mills Limited, Bangalore was incorporated in May 1936 and became a Government company in November 1977. The paid up capital of the Company as on 31 March 2006 was Rs.118.84 crore; contributed by State Government Rs.76.92 crore (64.70 *per cent*), Financial Institutions Rs.38.80 crore (32.70 *per cent*) and private parties Rs.3.11 crore (2.60 *per cent*). Presently, the Company is engaged in the manufacture of cultural and writing paper, newsprint and sugar. Towards its computerisation activities, the Company has spent Rs.2.28 crore so far on hardware and software and is incurring annually an expenditure of Rupees seven lakh for their maintenance. The Information Technology (IT) Organisation of the Company is headed by one Senior Superintendent reporting to the Assistant General Manager (Finance) at Bhadravathi. Important computer applications being used by the Company are Stores accounting, Payroll and Main accounts packages.

Scope of audit

2.3.2 Audit evaluated the General IT Controls and application system prevailing in the Company dealing with Stores, Payroll and Main Accounts (Financial Accounts) during March 2006.

Audit objectives

2.3.3 The audit objective was to evaluate the effectiveness, reliability and integrity of application systems, dealing with Stores, Payroll and Main Accounts (Financial Accounts) along with an evaluation of the general IT controls in the company.

Audit criteria

2.3.4 The audit criteria considered for assessing the achievement of audit objectives were manual data, electronic data, wherever made available, and manuals and procedures for implementation of Stores, Payroll and Main Accounts (Financial Accounts) packages.

Audit methodology

2.3.5 The sample data of the information contained in data tables received from the IT department of the company was scrutinized using the generalized audit software-IDEA.

IT policy and strategy

2.3.6 It was noticed in audit that in spite of investing significant amounts on IT assets, no strategic IT Plan had been drawn up to satisfy business requirements duly striking an optimum balance of IT opportunities and IT requirements. Consequently, no long-term plans and short-term goals were set for optimum use of IT assets. Moreover, there was no Planning/Steering Committee to oversee the IT function reporting to the Board of Directors/Senior Management. Importantly, IT function was not monitored as a cost centre to ensure that the benefits derived there from were cost justified. In fact IT assets were being acquired by various departments independently on *ad hoc* basis without a clear relation to business requirements; various departments of the Company had so far acquired IT assets worth Rs.2.28 crore

The Management while noting the audit observations stated that the Company is working out an IT strategy. It was further stated that an experts committee for advice/ teams to study the requirements have been set up and the future investments would be justified.

Deficiencies in development of computer applications

2.3.7 It was noticed in audit that though the Company had implemented many computer information systems investing significant sums in computer hardware, software and facilities, no structured approach for development and implementation of various computer applications has been adopted. The Company did not have a proper procedure for requests for proposals and their evaluation, and alternate courses of action satisfying the business needs were not considered by making a thorough technical and economic feasibility study.

There was no documentation, which contained critical information such as the nature and scope of each system development project. It was noticed that no documentation regarding the proposals for development of the payroll package and main accounts packages were formally made but these were developed in an *ad hoc* manner without covering all aspects of the payroll/accounts and fully automating the same. No user manuals/operation manuals were prepared. Though software packages were frequently changed to meet the various needs of the users no documentation of changes were available indicating the same.

The Management stated that structured approach was not adopted due to financial constraints and absence of technical staff and that the future projects would have a component of Facility Management Service to oversee the projects.

The main functions computerised in the Company are Stores, Payroll and Financial Accounts. Audit observations on deficiencies in each of them are given below:

Stores accounts

2.3.8 The system was developed by APTECH at a negotiated price of Rs.17 lakh in 1997. In August 2000, however, status report by Sr. Manager (Finance) indicated many lacunae in the package. The Company then belatedly realised that the software supplied was not the one promised by the firm, and further it could not satisfy several laws like the Companies Act, 1956. However, when APTECH was addressed during July 2001 to complete the project it replied that the project could be completed only if the Company agreed to introduce new technologies since the technology adopted and the work done at the Company was outdated. The Company was, thus, constrained to use the package only to a limited extent in stores and inspection sections to handle receipts and indents of materials and it was forced to maintain the inventory data in Kardex systems.

The accounts section of the Company used a FoxBASE application to handle accounts of inventory keying in again the data from stores, purchase and cash sections. The package had many deficiencies such as:

- system accepting issues more than stock on hand;
- non prompting of minimum, maximum, reorder level and economic order quantity;
- non-supporting of classification into high, medium and low value stores (ABC analysis); and
- non-validation on completion of a purchase order and not generating quantity of purchase orders pending.

It was also noticed that the master table of stores contained blank descriptions (326 items), duplicates (8,114 items) and junk descriptions (126 items). Out

of 83,358 records the balances of items involving Rs.36.03 lakh was indicated as negative at the end of 2004-05, as if the material issues made were over and above the balance held in stock. Reports from such database are bound to be inaccurate and hence not useful for decision-making.

It was further observed that the finished goods accounting were yet to be computerized and the purchase section was partially computerised. Similarly, only about half of engineering spares were computerised in purchase section. Thus, the information relating to a large number of stores remained outside the computer system. Importantly the master table of stores section contained 80,000 records against only 50,000 records in master tables of finance section. This also led to non-linking of purchase orders to receipts and indents necessitating frequent addition of items to master tables in finance section.

The Management noted the audit observation and stated that the Company had constraints of insufficient IT personnel and it will be ensured that safety measures are incorporated in future systems.

Payroll package

Lack of key controls rendered the payroll package vulnerable to risk of incorrect payments.

2.3.9 The Payroll package of the Company was running in COBOL/UNIX database up to the year 2000. The Company, in the year 2000, developed in house with some hired help a new package in ORACLE/Developer 2000. The package serves the purpose of handling payroll of about 2,800 employees.

It was noticed in audit that certain important changes effected were not frozen by the system, for example retired and dead cases once marked could be revived by removing the flag or changing them and the authorities sending the soft copies did not authenticate the inputs.

It was further noticed that though the attendance of the employees was recorded through “Badge Reader” machines, but in cases where the employees swiped the bar coded cards provided to them, no attempt was made to link the attendance details to payroll directly. Instead machine data was downloaded to a data base file and posted to manual ledgers and at the end of each month a detailed statement was sent to payroll section indicating details of admissibility of hazardous allowance, attendance incentive, overtime, recovery to be made for absence, etc. Due to non-linking of card readers to payroll, information flow was slow, the attendance particulars furnished were required to be modified in subsequent months as and when various departments provided more information. Thus, much of payroll work was still carried out manually with associated risks of data entry error.

Audit also observed that data entry of basic pay was not validated for a range of minimum and maximum of a pay scale and in case of non release of increment, the system did not support reduction of pay automatically as per practice. The system did not prompt for increments due and instalments/balances of recovery of advances were also not prompted or updated automatically. Dues in respect of electricity charges continue to be watched manually. Similarly, the entitlement of several allowances, category

of employee for attendance incentive was not determined by the system but was manually keyed in.

Though the master tables containing the entitlements of all the employees had been populated in the year 2000 and were constantly undergoing changes by way of addition, deletion and modification, audit trails of users who caused the changes were not provided for. Moreover, the master table maintained was not independently checked with the personnel department. It was seen that the number of employees as per data base varied with the information published by the Company in its annual reports. It was noticed in audit that Payroll data table relating to 2003-04, furnished by the Company contained 462 cases of payments involving Rs.10.49 crore, which was found in the database of 2002-03 also. It was stated that duplication in the data table was required for making arrears of DA calculations for the period January to March of previous year, which indicated the limitations of the design of the package.

The Management stated that all the observations would be taken care of in the proposed study being undertaken.

Main Accounts (Financial Accounts)

Lack of key controls exposed the system to risk of incorrect and inaccurate reports being submitted for management decisions.

2.3.10 It was noticed in audit that the process culminating in the finalization of Main accounts were being run on a variety of applications. The Main Accounts of the Company were being processed using an application package in FoxBASE in finance section at Bhadravathi, since 1998-99. The inputs to the package were received from different departments in batches. Further, inputs also comprised of Cash accounts maintained with Visual FoxPro and bank transactions compiled in FoxBASE. Transactions compiled in MS Access at Bangalore office and sales transactions compiled in 'TALLY' software from branches and Bangalore office were received. Manual journal entries summarizing transactions were received from various other units of finance section. Thus, different branches were running programs in different platforms. As the master tables were not common to all sections, the errors had to be identified at the EDP Section and communicated for corrective action back to different sections.

It was noticed in audit that the system had the following deficiencies:

- The system did not support calculation of depreciation charges but were keyed in after manual calculation.
- The package accepted data keyed in without validations for dates. It was noticed that 468 transactions (260 Debit items valuing Rs.35.97 crore and 208 Credit items valuing Rs.36.23 crore) were shown as relating to year 1905.
- The package did not support self balancing of transactions as total of debits and credits did not tally in some data tables.

The Management noted the observations and stated that safety measures would be incorporated in future systems.

Access Controls and Segregation of duties

A strong system of physical and logical access control did not exist.

2.3.11 Password controls were found to be poor and there was no provision to prevent the password to be same as user IDs. There was no mechanism to detect and act upon unsuccessful log-ins and there was no restriction of number of unauthorised attempts. Moreover, there was no firewall to protect the data and systems from intrusions from internet and public network. It was also observed that access to important servers was not under lock and key and employees and visitors were seen to be having free access to the server room. No segregation of duties was observed for functions like data entry, system administration, system development and maintenance, change management and security administration; no job description documents were maintained.

The Management noted the observations and stated that safety measures would be incorporated in future systems.

Business Continuity Planning and Data security

There was no well developed business continuity plan to take care of IT assets in case of disasters.

2.3.12 No IT continuity plan was drawn up. Moreover, no procedures and guidelines were in place to retain source documents so that data was reproducible and to facilitate reconstruction in case of disasters. This was important as many packages were running in older versions of FoxBASE and ORACLE.

The Management noted the observations and stated that safety measures would be incorporated in future systems.

Acknowledgement

Audit acknowledges the co-operation and assistance extended by the staff and the Management of the Company and officers of the Government at various stages of conducting the performance review. The matter was reported to the Government (August 2006); their reply is awaited (September 2006).

Conclusion

The Company having spent a large sum of money substantially computerising its activities has not been able to get the desired benefits. This was mainly due to lack of an IT strategy not only in acquisition and development of a large number of IT systems but also in their maintenance. The applications dealing with Stores, Payroll and Accounts have serious design deficiencies and are being run in a poorly controlled environment posing a risk to the integrity of the information processed and contained therein.

Recommendation

Immediate measures should be taken to address the deficiencies in the acquisition and development of the IT systems dealing with Stores, Payroll and Accounts.