MINISTRY OF COMMUNICATIONS AND INFORMATION TECHNOLOGY, MINISTRY OF PETROLEUM AND NATURAL GAS, MINISTRY OF HEAVY INDUSTRIES AND PUBLIC ENTERPRISES, MINISTRY OF CHEMICALS AND FERTILIZERS, MINISTRY OF COAL AND MINISTRY OF DEFENCE

CHAPTER IV

Information Technology Audit of IT systems in selected Public Sector Undertakings

Executive Summary

Information Technology (IT) systems bring about speed and efficiency in operations, but they also have risk relating to data integrity, data security, privacy etc. The IT systems, therefore, should have adequate safeguards to minimise the exposures to various risks. During the year IT audit of 13 computerised systems including Enterprise Resource Planning (ERP) used in different areas of activity of 12 Public Sector Undertakings (PSUs) was done, out of which results of audit of seven PSUs under six Ministries have been covered in this review.

Bharat Sanchar Nigam Limited

The decision to implement an ERP solution by Company was an attempt to re-engineer its IT efforts for enhancing its operational efficiency along with quality of service. Audit noticed absence of interface with existing software packages, deficient customisation of the system to the needs of the organization, weak input controls and validation checks, and deficient monitoring of the functioning of the system. This suggests that the ERP system has not been optimally utilised.

Oil India Limited

SAP R/3 was implemented by the Company with the objective of improving efficiency and effectiveness of business processes. However, it was seen in audit that SAP R/3 was not customised completely and the business rules were mapped inadequately. The difference between the legacy data and the data uploaded into SAP is yet to be fully reconciled thereby making the SAP data unreliable. SAP R/3 was not being utilised optimally for proper allocation of cost and accounting of financial transactions.

Hindustan Paper Corporation Limited

The Corporation decided to implement Oracle e-Business suite with the objective of achieving multiple benefits. It was, however, found that there were deficiencies in mapping the business processes into the system and inappropriate customisation in areas of sale of products, realisation against sale, purchase and receipt of materials. As a result of all these deficiencies, the system could not be utilised to its full potential and the benefits as envisaged could not be achieved fully.

Rashtriya Chemicals and Fertilisers Limited

One of the main objectives of implementation of SAP was availability of data on real time basis and elimination of inter-dependence on others in faster data access and collation for reporting and time sensitive decision-making. However, this objective was not achieved as inadequate customisation and mapping of business rules led to continued dependence on manual controls and also delays in procurement process. The Management did not succeed in customising all the features into the system and non utilisation of certain important features available in SAP resulted in deficient inventory management.

Indian Oil Corporation Limited

The Company implemented SAP ERP system with a view to standardise and streamline the day-to-day operations of all the units on a common IT platform. The Company has not yet formed an IT policy for its IT environment which includes its SAP system, to direct its actions and efforts. Lacunae were also found in Network Security and Disaster Recovery setup. The Finance Module has inter-linkages with all the modules in the ERP system and consolidates all the financial information to generate the financial statements of the Company. The observations brought out in the report indicate inadequacies of various controls in the system which have implications in the financial reports generated through the system.

Neyveli Lignite Corporation Limited

Online Integrated Material Management System was implemented with the primary objective of achieving reduction in lead time, automation of demand forecasting and scientific inventory control. The Company could not utilise the application for effective inventory control. Failure to import legacy data and non updation of required parameters in the system resulted in inadequacy of Decision Support System.

BEML Limited

The Company decided to implement SAP with the objective of Companywide networking and common integrated applications across the organisation, ensuring availability of centralised MIS data which would help in decision making. System is not on-line due to delay in capturing of transactions. Failure to design the required controls in the system, inappropriate customisation, lack of validation checks and inadequate controls during data migration resulted in non-utilisation of the SAP system to its full potential and the integrity and accuracy of the data could not be ensured.

4.1 Introduction

Information Technology (IT) is a broad subject which deals with technology and other aspects of managing and processing information, especially in large organisations. Particularly, IT deals with the use of computers and computer software to convert, store, protect, process, transmit, and retrieve information. While IT systems bring about speed and efficiency in operations, they also have risk relating to data integrity, data security, privacy *etc.* The IT systems, therefore, should have adequate safeguards to minimise the exposures to various risks.

During the year IT audit of 13 computerised systems including Enterprise Resource Planning (ERP) used in different areas of activity of 12 Public Sector Undertakings

(PSUs) was done, out of which results of audit of seven PSUs under six Ministries have been covered in this review.

4.1.1 Audit objectives

The following were the broad audit objectives:

- To review controls of IT systems to gain assurance about their adequacy and effectiveness;
- To ascertain correctness of mapping of various business rules and policies;
- To evaluate performance of a system;
- To ascertain adequacy of security of the IT systems; and
- To evaluate the achievement of objectives of IT systems.

4.1.2 Audit criteria

The following constituted the audit criteria:

- Objectives set by the Company at the time of conceptualisation;
- Business rules, manuals, delegation of powers and procedures followed by the Company;
- Accounting policy adopted by the Company; and
- Control and Security parameters keeping in view the best IT practices.

4.2. Audit findings

4.2.1 Bharat Sanchar Nigam Limited

Bharat Sanchar Nigam Limited introduced SAP R/3 version 4.7 in Gujarat Telecom Circle (GTC). The SAP-ERP server is installed at ERP Data Centre at Ahmedabad and LAN (Local Area Network) / WAN (Wide Area Network) were used for connecting R/3 environment to the nodes at Secondary Switching Areas (SSAs). The work of implementation of ERP in GTC was awarded to Siemens Information Systems Limited (SISL), Mumbai at a cost of Rs. 20.14 crore. The objectives of implementation of ERP were to: (i) Improve the information flow to facilitate better decision making leading to overall improvement in the performance of the organisation by way of improvements in productivity, cycle time, financial performance and information transparency, (ii) Convert GTC into a paperless working environment and (iii) Reduce manpower requirement. However, it was observed that the desired objectives did not accrue to the Company as detailed below:

4.2.1.1 Business Process Re-engineering (BPR)

Business Process Re-engineering (BPR) is one of the fundamental steps undertaken prior to ERP implementation. While according sanction for implementation of ERP in Gujarat

Telecom Circle, BSNL Corporate Office in August 2003 had approved implementation of ERP in one SSA and implementation in entire Circle was to be done after finalizing business processes. Against the instructions of the Corporate Office, GTC went ahead with implementation of ERP in all SSAs without finalising BPR which resulted in manual intervention and deprived the Company of advantages of ERP. For instance, In the manual system, for sale of top-up and recharge coupons the Marketing wing issues delivery note to the franchisee for the quantity of top-up and recharge coupons and the Cash section receives the payments against the quantity authorised by the Marketing wing. The products are then issued by the Marketing wing after production of cash receipts. In an ERP environment all the above functions could be carried out through a single window. It was noticed that all the activities related to the sale of top-up and recharge coupons of GTC were being carried out in the traditional way despite operating in a computerised environment. The total value of sales of these coupons in the two years of 2007-08 and 2008-09 was Rs. 470.50 crore out of which 79 *per cent* amounting to Rs. 372 crore was through franchisees. On being pointed out by Audit (Aug 2009), it was replied that the issues would be taken up with the Management for implementation of single window concept.

4.2.1.2 Interface with the telephone revenue billing packages

There are two billing packages used in GTC for billing. One of the important conditions of the agreement with SISL for implementation of ERP was to provide interface with the existing billing packages. It was observed that no interface was provided with the revenue billing packages and the revenue from them are accounted in ERP through Journal Vouchers. In the absence of interface bank reconciliation of collection accounts is done manually depriving GTC of the advantages of efficient fund management.

4.2.1.3 Digitisation of service details and records

Agreement with M/s SISL stipulated that service records, personal details, watching of crucial dates in service, Career Planning, Appraisal System, Pay Roll, terminal benefits *etc* for approximately 28,000 employees were to be digitised. But it was observed that the vendor did not comply with contractual agreement with the result that service related activities like leave account of employees, pay fixation, grant of increment *etc* are done manually in the Circle defeating one of the major objectives of ERP implementation which was to reduce human intervention in various administrative works.

4.2.1.4 Declaration of 'Go Live' status even before achieving online status in various modules

As per terms of the agreement with M/s SISL, ERP was to be commissioned by March 2005. It was observed (October 2009) that 'Go live' was declared in the year 2007, even though online status was not achieved in many modules and transactions. The activities like processing of Performance Bank Guarantees, posting of leave entries, settlement of temporary advances, Leave Travel Concession (LTC) and Medical claims were processed offline. Moreover, on review of the Trial Balance and other accounting statements prepared from ERP it was noticed that in the two years after declaring 'Go Live' more than 65,000 JVs (document created in ERP for accounting transaction carried out in legacy system) were prepared during the preparation of final accounts of the Company. It is expected that there should be minimum possible manual intervention after declaring

'Go Live'. But absence of interface with other software packages and continuance of manual system contributed to the preparation of large number of JVs. On this being pointed out the Management replied that the work of creation of interface for other packages was in the pipeline.

4.2.1.5 Customisation and mapping of rules on delegation of financial powers

Customising the ERP package to the requirements of the Company and mapping the business rules of the Company completely to it was an important stage in the project implementation. As per Company's accounting policy, sanction from the appropriate level of Management is a must for incurring any expenditure. It was seen that while implementing ERP the practice of preparing estimates for maintenance work was replaced with a system of 'maintenance orders' and no monetary limit was prescribed for 'maintenance orders' in the Plant Maintenance (PM) module. A review of the expenditure in PM module for 2007-08 and 2008-09 showed that expenditures of more than Rs. One lakh in each case aggregating Rs. 44.21 crore were incurred without the cases being approved through workflow of ERP. This expenditure on maintenance should have been linked with the workflow so that a watch on such expenditure could be monitored by top level Management to ensure only expenditures of maintenance nature are processed thorough Plant Maintenance module. This led to inflated per line maintenance cost for GTC besides depriving it of the benefits of depreciation which otherwise would have accrued on the capital assets booked in PM module. On being pointed out, the Management confirming that no financial limit has been set for bookings under maintenance orders stated that though the system has facility to control maintenance expenditure errors due to non-creation or ignorance of planning wing of SSAs, the expenditure had been booked under maintenance order. It was further replied that instructions were being issued for strict compliance of orders as pointed out by Audit.

4.2.1.6 Monitoring of functioning of ERP

For efficient functioning of an IT system, it is important that the Management put in place effective monitoring mechanism which would facilitate early detection and rectification of deficiencies. Audit observed the following deficiencies due to lack of effective monitoring of the functioning of ERP:

- In Vadodara SSA it was seen that equipment costing Rs. 1.45 crore received in August 2007 was taken into stock only in Jan 2008. Though the equipment was put to use, it neither formed part of Work in Progress (WIP) nor the Fixed Assets of the SSA for the financial year 2007-08. On being pointed out by audit, it was replied that the consignment was directly received by the sub-division and only on receipt of bill for payment the omission was noticed.
- In the Company, transfer of stores between different units is frequent and processing of Advice of Transfer Debits (ATD) is an important activity in stores transactions. Test check of ATD transactions in Surat SSA revealed that an ATD for Rs. 43.6 lakh which was supported with invoices was shown in the system as Rs. 20.07 lakh.
- As per the Company policy, assets costing less than Rs. 5,000 should be depreciated fully. It was seen from the data in FICO module that in 792 cases

assets valuing less than Rs. 5,000 were not depreciated fully. On being pointed out it was replied that the matter would be taken up with ERP core team for necessary action.

4.2.1.7 Data validation

Efficient data validation procedures are important to ensure the reliability of output from the system. Audit observed the following deficiencies in the functioning of ERP due to weak validation of data.

(a) As per existing rules the minimum subscription to GPF should be six *per cent* of the pay. However, it was noticed that the system was accepting subscriptions below six *per cent* of pay also. On this being pointed out, the Management replied that validation for GPF subscription would be restored from April 2010.

(b) As per accepted accounting principles, depreciation of an asset should commence from date of its capitalisation. However, it was observed that date of capitalisation and date of commencement of depreciation were different in many cases. Moreover, life of assets was not matched properly and in many cases it was shown as 999 years.

(c) The currency of assets of Vadodara SSA in "depreciation posted" sub-module in FICO was seen as US Dollars (USD) instead of Indian Rupee (INR).

4.2.1.8 Utilisation of ERP

In order to achieve all the objectives envisaged in the implementation of ERP system it was imperative that capabilities of the system were utilised optimally by making use of all the modules. It was seen that the Material Management wing continued the traditional manual system in handling important activities like registration of purchase requisition from field units, Notice Inviting Tender (NIT), Evaluation and Finalisation of Tender, collection of Bank Guarantee and Security Deposits and processing for payment for goods delivered despite implementation of ERP. Vendor rating and vendor blacklisting which were possible with the creation of vendor master were not done through ERP. On being pointed out, the Management confirmed the facts.

4.2.1.9 User account management

Review of the user account management of ERP revealed that multiple user accounts existed for the same officer in different capacities within the same SSA or in two different SSAs and user once created was not being cancelled or deleted on transfer or retirement of the official. It was also noticed in Surat SSA that bills pertaining to Civil Division were accepted and passed by logging in as Accounts Officer, Telecom Electrical Division.

4.2.1.10 Business continuity and disaster recovery

No documented business continuity and disaster recovery plan had been formulated by GTC. Though the Company was handling sensitive information and had computerised all aspects of its business, the Company had not yet formulated IT policy including IT

security policy. Further risk assessment also had not been conducted and documented to identify threat perception and safety measures for IT Department.

4.2.1.11 Conclusion

The decision to implement an ERP solution was an attempt to reengineer its IT efforts for enhancing its operational efficiency along with quality of service. But absence of interface with existing software packages, deficient customisation of the system to the needs of the organisation, weak input controls and validation checks, and deficient monitoring of the functioning of the system, as brought out in the report suggest that the ERP system could not be optimally utilised. The flaws of the system brought out in the report, which has a bearing on the financial statements of the Company, needed urgent attention, before being rolled out further in BSNL.

4.2.2 Oil India Limited

Oil India Limited (OIL) adopted SAP R/3 (version 4.7) as its Enterprise Resource Planning (ERP) software to enable it to integrate its business processes across the value chain. The total project cost was Rs. 45.04 crore. The ERP system went live in December 2005. At the time of implementing the system, the Company had carried out a detailed cost benefit analysis incorporating all tangible benefits that would accrue by implementing SAP R/3 and projected a benefit of Rs. 14.67 crore per annum. The benefit, inter alia, was expected to flow mainly from control of inventory carrying cost, overtime expenditure, fuel oil consumption, repair and maintenance cost, decrease in surface equipment shutdown time in drilling operations, transport and other contract cost, *etc.* Audit scrutiny, however, revealed that the Company could not get the above benefits entirely, due to inadequate End User Training and underutilisation of ERP as detailed below:

- There is no effective Information Security policy in the Company.

- Corporate Financial Management (CFM) module is not being utilised and the server purchased for CFM is kept under shutdown. The other modules *viz*. Plant Maintenance (PM), Human Resource (HR) and Project System (PS) are also underutilised. Plant Maintenance activities are not being adequately monitored through PM module due to non updation of Maintenance history, Breakdown details, job completion status, *etc.* Manpower Planning is not being carried out in HR module. Further, HR data is not being updated regularly especially for separation cases, loan data and new recruits. Daily Progress Report (DPR) for Drilling/ workover and survey activities are not being regularly captured in the PS Module.

Audit reviewed the general performance of two modules of SAP R/3 namely Financial Accounting and Controlling (FICO) and Project System (PS) which revealed the following:

4.2.2.1 Financial Accounting and Controlling (FICO)

Financial Accounting and Controlling (FICO) module of SAP R/3 is envisaged to cater to all the accounting, financial and informational / reporting needs of the Finance and Accounts Department of the Company. However, the following deficiencies were observed in the FICO module:

a) Single invoice can be processed for payment more than once in the Cash journal. The Management agreed (August 2009) that same invoice can be processed for payment more than once in cash journal and there is scope for double payment.

b) Revenue budget has not been configured in SAP R/3 and, thus, budgetary controls on the revenue expenditure could not be exercised. The Management stated (August 2009) that Fund management module will help in exercising budgetary controls and the same has been proposed to be implemented during up-gradation of SAP R/3.

c) General Ledger Accounts, which are supposed to take automatic direct posting from other modules (such as Materials Management, Sales and Distribution *etc.*), have not been marked for such automatic posting. The Management stated (August 2009) that, to minimise manual intervention, steps are being taken to include as many accounts as possible for automatic posting.

d) SAP has not been configured for preventing the use of wrong cost centres. The Management stated (August 2009) that creating owners for cost centres/ WBS etc is difficult and cumbersome.

e) Depletion[1] calculation has not been properly mapped. In SAP R/3, depletion is being calculated on monthly basis, whereas the business process of the Company requires depletion to be calculated on quarterly basis. The Management accepted (August 2009) the issue and agreed to look into the matter for possible remedies.

f) The system of allocation of cost to oil wells has not been properly mapped in SAP R/3. So, the cost of departmental drilling manpower could not be allocated correctly to oil wells as the allocation cycle could not differentiate between departmentally operated oil wells and contractually operated oil wells. The wrong allocation of costs is adversely affecting the well costs and leading to generation of wrong Management Information System Reports. The Management accepted (August 2009) the issue and agreed to look into the matter.

g) In cash contra account the original document number is not properly linked with the assignment field of the document being generated at the time of cash disbursement. Due to such improper configuration of SAP R/3, cash contra entries could not be reconciled automatically. The Management stated (October 2009) that they would look into the feasibility of modifying business process so as to channelise the cash contra accounts.

[1] ***Depletion is a method of recording the gradual expense or use of natural resources over time. Thus, depletion is analogous to ordinary depreciation.***

h) SAP R/3 has not been configured to generate Cash flow Statement, Segment Reporting, *etc*. The Management stated (October 2009) that for generating Segment reporting from SAP, will require certain change in Profit Centres. The same has been planned for during the upgrade of SAP R/3.

i) Materials, which have already been consumed, are not being booked into SAP R/3 and are reflected in the inventory. The actual status of consumption of material(s), worth Rs. 91.65 crore (as on 31 March 2009), at various storage locations could not be ascertained. According to the Management (August 2009), this issue is related to lack of user discipline and has been taken up by the Management with utmost priority.

j) Statistical Key Figures (SKFs) are not being updated by the respective departments. So, SAP R/3 could not automatically determine the Statistical Key Figures (SKFs) for allocating the indirect costs. According to the Management, the ignorance of respective users in updating the SKFs is the reason for above anomaly. The Management stated (October 2009) that users would be re-educated.

k) The records of physical verification of assets are not being updated regularly in SAP R/3 and the physical existence of assets, valued at Rs. 116.24 crore, could not be confirmed. The Management could not monitor the physical existence of assets of the Company through SAP R/3. According to the Management this is an uploading issue and the same would be addressed.

l) Input controls are not sufficient to prevent the payments of regular nature being made under the facility of 'one time vendor' payments. Using the 'One Time Vendor' facility for making payments of regular nature increases the risk of payment frauds. The Management stated (October 2009) that this issue would be flagged to concerned authorities so as to minimise one time vendor facility.

4.2.2.2 Migration of data from legacy system

The data uploading into SAP R/3 was done without proper reconciliation and cleaning. There was around Rs. 247 crore difference between legacy data and the data migrated to SAP R/3. This fact was noticed by SAP itself, in course of Quality Review Program after post Go Live Phase. The Management was requested to provide detailed Action Taken Report for the reconciliation done, but no such report was produced to Audit. The Management stated (October 2009) that the issue would be looked into.

4.2.2.3 Project System

Project System (PS) module of SAP R/3 ERP system provides the framework for mapping and processing of project tasks, planning, execution and monitoring of projects in a targeted and cost-effective way. PS is linked to the SAP R/3 Financial Accounting, Sales and Distribution, Materials Management, Production Planning, and Plant Maintenance modules. The following issues were noticed during the course of audit of Project System module of SAP R/3:-

a) Budgetary checks are not operating at the time of raising Purchase Requisitions (PR) for contractual services. Audit noticed that Purchase Orders, valuing

Rs. 12.30 crore were raised against PRs without reflecting commitment value, during the period from 2006 to 2009.

b) Contract Work Order (CWO) can be created in SAP R/3 with 'unknown' account assignment bypassing budgetary controls. Audit noticed that sixty seven (67) work orders valuing Rs. 11.09 crore were issued with unknown account assignment during the period from 6 December 2005 to 30 April 2009.

c) Cost planning of the Work Break-Down Structures (WBS[2]), except the material cost, through network is not being done. Hence, the actual versus plan cost against WBS does not reflect the correct scenario.

The Management accepted (August 2009) the above three issues and agreed to resolve them.

a) Though networks are configured in the project system module for time line monitoring, confirmation of the activities is not being updated into SAP R/3 and, thus, scheduling of project(s) could not be done through SAP R/3. The Management stated (August 2009) that departments would be further trained to utilise the functionality during up gradation of SAP R/3 to get better results.

b) When a project is completed, commissioned and capitalised the status of Work Break-Down Structure (WBS) should be set as 'closed' to avoid raising of Purchase Requisitions (PRs) against such completed and commissioned projects. The input controls were inadequate and could not prevent the raising of Purchase Requisitions (PRs) against completed and commissioned projects. The Management stated (October 2009) that the business process for this already existed and the issue would be taken up with respective Business Process Committee to streamline the system usage.

c) Audit noticed that the break-up of the revised cost estimate was not uploaded in SAP R/3, still, the supplementary budget requests were approved. Similarly, the replacement budget was approved without uploading the asset(s) to be replaced. The Management stated (October 2009) that the anomaly would be looked into and suitable configuration would be done in the system to avoid such recurrence.

4.2.2.4 Conclusion

SAP R/3 was implemented by the Company with the objective of improving efficiency and effectiveness of all business processes. However, it was seen in audit that SAP R/3 was not customised completely and the business rules were mapped inadequately. SAP R/3 did not have adequate data input controls and validation checks. Further, deficient internal control procedure failed to ensure accurate and timely capture of data. The difference between the legacy data and the data uploaded into SAP is yet to be fully reconciled thereby making the SAP data unreliable. SAP R/3 was not being utilised optimally for proper allocation of cost and proper accounting of financial transactions. Moreover, resource planning and scheduling of projects was not being done through SAP R/3 resulting in time and cost overrun in capital intensive projects. Thus, inadequate controls and under-utilisation of SAP R/3 undermined its effectiveness and efficiency.

---

[2] A work breakdown structure (WBS) in project system module is a tool used to define and group a project's discrete work elements (or tasks) for detailed cost estimation and control.

4.2.3 Hindustan Paper Corporation Limited

Hindustan Paper Corporation Limited (Company) was using Integrated Business Information System (IBIS) for invoicing, sales and purchase accounting purposes. In 2003, the Company decided to implement the ERP solution for its various activities and accordingly, Oracle e-Business Suite, an ERP solution by Oracle Corporation, was selected through a global tendering process. Tata Consultancy Services Limited was the implementation partner and WIPRO was the vendor for supply of the production server. The ERP system, installed in Nagaon Paper Mill (NPM), Assam of the Company, was made operational in April 2006 at the cost of Rs. 7.70 crore. As per Memorandum of Understanding (MOU) (2002-03) with the Government of India, implementation of ERP was to be completed by March 2003. However, it was noticed that the order for implementation was issued only in January 2005 and the ERP system went live in April 2006, with a delay of three years. The delay was primarily due to procedural delays attributable to the Management.

4.2.3.1 Anticipated benefits of ERP

The anticipated financial benefits of implementing ERP worked out to Rs. 13.07 crore over five years period mainly by way of savings in inventory carrying cost through reduction of procurement cycle. Intangible benefits such as accuracy of payment against material receipt, online availability of cost sheet integrated with production/ sales data, accurate information of real-time customer balance helping faster and error-free invoice-processing and dispatch operations were also expected. The following tangible benefits as envisaged could not be achieved:

a) Against anticipated reduction of average procurement cycle time from 18 weeks (2003) to 10.8 weeks, actual average procurement cycle time for the period 2006-09 was found to be more than 28 weeks.

b) 20 *per cent* reduction in inventory holding was also envisaged during post implementation period. This could not be achieved as with similar levels of turnover, the inventory levels remained almost same during 2006-2009.

The Management stated (September 2009) that in the current year the procurement cycle time has improved to 22 weeks and the value of inventory is gradually decreasing. However, the envisaged limits were yet to be achieved.

4.2.3.2 General controls

Following deficiencies in general controls were noticed:

- There was no documented 'Information Technology Policy'.

- Some of the security parameters as recommended by ORACLE were not configured but retained as default values. The Management stated (September 2009) that these discrepancies would be taken care of during finalisation of the IT Policy of the Company.

- The user management was deficient which exposed the system to the risk of unauthorised use and loss of audit trail and difficulty in tracing the identity of the

unsuccessful login. The Management stated (September 2009) that the issues would be reviewed and monitored regularly in future.

4.2.3.3 Input control and validation checks

The following deficiencies were noticed in this regard:

- Changes in price of finished products were not immediately uploaded in the system. Consequently, sale of products in the intervening period was made at old rates necessitating manual corrections by way of raising debit/credit notes. Analysis revealed that on 81 occasions, the delay in changing price list ranged between 1 to 48 days. This increased the risk of errors and omission. The Management accepted the delay and attributed (September 2009) the same to lack of training and delay in finalisation of price lists.

- 215 codes had been allotted to 78 customers indicating that customers were allocated more than one code and the customer names were almost similar but their Customer ids were different and goods were sold to the same customers under different customer IDs. The existence of duplicate customer IDs may lead to the risk of extending additional credit facilities to a single customer. The Management stated (September 2009) that separate IDs were allotted to the same customer based on category like third party, stockist etc and operation at multi-locations. The reply of the Management is not acceptable since duplicate customer IDs were allotted to the same customers belonging to the same category and located at the same addresses.

- Analysis revealed that 1,090 inventory items were allotted more than one code and separate stocks exist for 51 duplicate items. In case of 223 items, material descriptions were not available in the system. The Management stated (September 2009) that these were under review.

- Though the quantity ordered for 3,663 items against 488 purchase orders had been fully delivered, the purchase orders remained open. The Management stated (September 2009) that the Purchase Orders would be reviewed regularly and necessary action to close the Purchase Orders would be taken.

4.2.3.4 Business Process Mapping

Due to improper mapping of business rules the manual intervention was required which resulted in non achievement of the intangible benefits as envisaged. In this regard the following was observed:

- Sale of finished product can be made either on credit or against cash/advance payment. For cash payments, the customer is entitled to get a cash discount based on the payment terms. In this connection, it is observed that for cash sale, payment received from the customers is to be attached to the delivery orders generated. It was, however, noticed that system permitted generation of delivery orders without entering such payment details. Hence, there is a risk of delivery of finished goods without payments and since cash discount is automatically calculated in the

system, there is a risk of incorrect billing also. The Management stated (September 2009) that the Company would devise suitable preventive controls.

- The system accepted the entry of same cheque/DD numbers against different sales invoices. This may lead to the risk of incorrect adjustment of credits against the sales, which necessitated further supervisory controls. The Management accepted (September 2009) the deficiencies in this regard.

- In the case of credit sale, deliveries were made against receipt of post-dated cheques. It was, however, observed that system has not been customised to accept post-dated cheques against credit sales which resulted in monitoring of such sales through manual registers. The Management stated (September 2009) that it was being planned to address the issue.

- There is no provision in the system to levy penalty for quality and quantity shortage and to calculate the Liquidated Damages for delay in supply of materials though details relating to quality were available in the system. These were calculated and fed in the system manually thereby increasing the risk of inaccurate calculation besides underutilizing the system. The Management accepted the facts (September 2009) and stated that necessary provisions would be incorporated in the system.

- In case of rejection of goods by the customer, neither the returned items could be taken in the stock nor could the accounting entry be passed immediately leading to overstatement of sales and sundry debtors. This indicated that the system is deficient in accounting the material return against direct sale. The Management stated (September 2009) that the adjustments were effected in the system finally after entry was passed in the books of depot and the fate of persuasion to accept the rejected materials was decided.

- Reports like Monthly Segment Report, Monthly Stockist Off Take Report *etc.*, required for MIS purpose continued to be maintained separately for want of customisation of the same in the system. The Management stated (September 2009) that based on the users' requirement many reports were under customisation.

The above indicates that the user requirements have not been assessed properly before customisation of the system.

4.2.3.5 Conclusion

The Company decided to implement Oracle e-Business Suite with the objective of achieving multiple benefits. It was, however, found that there were deficiencies in mapping the business processes into the system and inappropriate customisation in areas of sale of products, realisation against sale, purchase and receipt of materials. Input controls and validation checks were also weak. This resulted in manual intervention at each stage which rendered the system vulnerable to the risk of incorrect generation of data. Further, deficient logical access controls made the system vulnerable to

unauthorised access. As a result of all these deficiencies, the system could not be utilised to its full potential and the benefits as envisaged could not be achieved fully.

4.2.4 Rashtriya Chemicals and Fertilizers Limited

Rashtriya Chemicals and Fertilizers Limited (Company) issued (November 2004) a work order for implementation of mySAP ERP with SAP R/3 Enterprise Version 4.7 on turnkey basis to Siemens Information Systems Limited, Mumbai at a lump sum price of Rs. 3.47 crore. This included Rs. 1.72 crore towards 250 user licences of mySAP ERP and Rs. 1.75 crore towards design, configuration, installation and implementation of selected core modules. The Company incurred an expenditure of Rs. 1.67 crore for procurement of hardware. The project went "Go live" on 1 January 2006. The benefit envisaged by the Company were (i) Elimination of inherent limitations of the legacy system, (ii) Availability of data on real time basis (iii) Integration across units and elimination of duplication of work and records, (iv) Ensuring faster accounts closing and declaration of financial results with reduced efforts, (v) Expected reduction in manpower requirement and (vi) Steps towards a paperless environment. Audit scrutiny, however, revealed that these benefits could not be achieved fully due to inadequate customisation and mapping of business rules and non utilisation of certain important features available in SAP which led to continued dependence on manual controls.

Audit assessed the implementation and usage of the Material Management Module controls and the security of the system which revealed the following deficiencies:

4.2.4.1 Business Process Mapping

Implementation of an ERP solution across the Company is to ensure integration of various business processes as far as possible. However, following deficiencies in mapping of business rules were noticed:

(i) Logically, "Purchase Requisition" date should precede "Purchase Order" date. It was observed that in 51 cases the "Purchase Requisition" dates were after "Purchase Order" dates.

(ii) There was no online system of creation, approval and release of both Purchase Requisitions and Purchase Orders. In case of raw materials the system was not configured for release of Purchase Requisitions. The system followed by the Company was to obtain approval on the file manually and input the data into the system later.

(iii) Purchase Requisitions were created and released in the system for procurement action. It was observed that in respect of 4,464 cases even though quotations were invited, no further action was taken. Similarly, in 4,113 cases, no procurement action was taken. There was also no provision in the system to capture the reasons for pending "Purchase Requisitions".

(iv) As per the delegation of powers, Deputy General Manager has powers to release Purchase Orders upto Rs. 5 lakh only. The powers to be exercised by General Manager and above were exercised by Deputy General Managers and officers

below the rank of Deputy General Managers which indicated absence of participation and commitment.

(v) In respect of 146 cases, Purchase Orders released during the period from 1 April 2006 to 31 March 2008, valuing Rs. 5.13 crore where delivery was completed and in 1,342 cases valuing Rs. 1,390.68 crore where partial delivery was completed, the Purchase Orders were still open (August 2009).

The Company accepted the audit findings and stated (September 2009) that the cases would be reviewed and closed wherever necessary.

(vi) There was no provision in the system to generate MIS Reports of pending Purchase Requisitions. The system was also not configured to indicate reasons for delay.

(vii) In 7,974 cases, valuing Rs. 51.57 crore, the time gap for converting Purchase Requisitions to Purchase Orders ranged from 90 days to more than 540 days. The Company had not fixed any time schedule for issue of Purchase Orders from the date of release of Purchase Requisitions in the system. The Company stated (September 2009) that efforts would be made to reduce lead time for converting Purchase Requisitions into Purchase Orders and in case of abnormal delays reasons for the same would be indicated in the system.

(viii) In 22,051 cases the Purchase Orders were issued on the same day or after the "expected delivery date" specified by the requisitioner.

The Management accepted the facts and stated (September 2009) that these features would be studied and wherever possible would be incorporated at the time of upgradation of SAP.

4.2.4.2 Non-utilisation of SAP

The data relating to availability and consumption pattern of materials available in the SAP system was not utilised for decision-making as detailed below:

(i) The Company after implementation of SAP procured materials worth Rs. 1.23 crore between 1 April 2006 and 31 March 2009 in spite of non-moving stock of the same materials worth Rs. 0.91 crore as on 1 April 2006.

(ii) After implementation of ERP, there should have been reduction in the inventory holding. It was, however, observed that the inventory of non-insurance domestic and imported spares increased by Rs. 18.42 crore from Rs. 129.94 crore as on 1 April 2006 to Rs. 148.36 crore as on 31 March 2009. The inventory as on 31 March 2009 included unmoved items worth Rs. 68.25 crore (46 *per cent*) during the period from 1 April 2006 to 31 March 2009.

(iii) Material Requirement Planning (MRP) facility to monitor and maintain minimum and reorder stock levels for critical materials has not been utilised.

(iv) The SAP system has provision for capturing data relating to delivery schedule of materials ordered and levy liquidated damages wherever necessary. However, the

enforcement of liquidated damages clause as per agreement in respect of late/undelivered Purchase Orders was not built into the system. During the year 2008-09, the Company recovered liquidated damages amounting to Rs. 2.12 crore based on manual calculation.

(v) There were 2,075 cases (Rs. 2,240.51 crore) of partly delivered Purchase Orders issued upto 31 March 2009 for which reminders were not generated through the system and were issued manually despite reminder feature available in SAP.

(vi) The vendor-wise and material-wise lead-time details were not captured in the system. In the absence of which the delays in delivery of materials could not be monitored through the system.

(vii) There was no provision to capture and track shelf life and the expiry date of the inventory. In the absence of such provision, the system could not prompt the users for impending obsolescence and the risk of belated decisions for procurement, replacement and disposal of obsolete inventory continued.

(viii) The system was not configured to capture inventory of repaired/repairable items and the spares used for their repair/overhauling. Due to non-maintenance of these details, inventory control could not be exercised over such items besides analysis of frequency of repair and economies of repairs over new purchases was not possible.

(ix) The provision to capture information relating to warranty/guarantee terms of the materials procured was not available in the system. Absence of this provision posed the risk of failure to use/test the usability of the equipment within the warranty/guarantee periods and to invoke the same wherever the situation warranted.

The Company stated (September 2009) that the cases required further study after which a report would be submitted and it has planned for comprehensive study of inventory during 2009-10.

4.2.4.3 Security controls

Following weaknesses and deficiencies were observed in the security controls:

- Ten user identities and related passwords with different roles remained unused from the date of creation and were not deactivated / locked.

- It was observed that Purchase Requisition and Purchase Order creation and release were being performed in the system by the same employee resulting in conflict of roles, which indicated weak internal control.

- A review of the users indicated that the users were not employee specific but based on the functions by the employees within a department/section of the Company. Therefore, more than one employee could log in with the same user identity and as such fixing of individual responsibility for commission/omission was not possible.

It was noticed that 385 users had not changed their passwords for the last one-year as on 24 August 2009. In the interest of better security management, Company should have a policy for password management.

The Company stated (August 2009) that all issues relating to effective management of data integrity, information security risks and vulnerability would be appropriately addressed and properly resolved after implementation of Information Security Management System (ISMS) by December 2009.

4.2.4.4 Conclusion

One of the main objectives of implementation of SAP was availability of data on real time basis and elimination of inter-dependence on others in faster data access and collation for reporting and time sensitive decision-making. However, this objective was not achieved as inadequate customisation and mapping of business rules led to continued dependence on manual controls and also delays in procurement process. Basic functions of Material Management module were to maintain details regarding Materials and Vendors/Suppliers and to aid the Company in monitoring the material planning, material procurement, inventory management and valuation thereon. Deficiencies in the input controls and validation checks were noticed in the system. Such deficiencies ran the risk of making the data incomplete and unreliable. It was also seen that the Management had not succeeded in customising all the features in the system. Non utilisation of certain important features available in SAP resulted in deficient inventory management.

4.2.5 Indian Oil Corporation Limited

Indian Oil Corporation Limited undertook an IT re-engineering project named 'Manthan' in 1997 and selected SAP R/3, ERP package with IS-OIL (specific ERP solution that caters to the needs of SAP R/3 users amongst the oil industry). The project was implemented in April 2004. The Company has around 10,000 users and 700 sites spread across the country working on SAP. Users from distant parts of the country are able to access and make transactions in SAP on a real-time basis.

The Company has kept its Database and Application servers at the corporate data centre, Gurgaon and they are accessible through leased line and / or VSAT[3] from all State Offices, Refineries and Pipeline Unit Networks. Other units such as Terminals, Depots and Bottling Plants *etc.*, are connected to SAP through the nearest State Office / Refinery. Along with the e-security audit of the system the finance module of SAP was also selected for audit.

4.2.5.1 e-security

The IT security review broadly covered the IT security environment in the Company and Roles and Authorisation in SAP system to conform to the Company's requirements. It was observed that the IT environment of the Company was not adequately secured as detailed below:

- A Corporate IT Security Policy defining logical access and physical access controls was yet to be framed. The Management in its reply stated (September

[3] ***Very Small Aperture Terminal and is used for network connectivity.***

2009) that an Integrated IT policy for the Company, covering IT Security Policies and Procedures was being finalised.

- Rationalisation of Users' roles and authorisation and segregation of duties was deficient. It was noticed that 29 combinations of two or more conflicting critical transaction codes involving processing sale orders / invoices / deliveries, payments, creation, settlement, change, deletion *etc* were extended to many users ranging from 18 to 4,808. The Management in its reply stated (September 2009) that roles and authorisation have to be attached to a number of employees to fulfil and meet our minimum operation, supply and distribution and logistic requirements. However, the Management did not assess the risk involved while extending a critical combination of authorisations to various users in the system.

- 88 users other than the BASIS team[4] was given access to the sensitive Transaction Codes[5].

- There was laxity in the password policy of the Company which allowed simple, trivial and non-alphanumeric passwords to be entered which made the system vulnerable to security threats internally. The Management stated (September 2009) that considering the size and level of the user base and optimal operational convenience, security measures were being implemented in a phased manner.

- The user's profile was not properly defined to which the Management replied (September 2009) that updating user groups and other details was a continuous process and concerned groups were taking action from time to time.

- Out of 13,451 user IDs, 955 user IDs were common *i.e*. used by more than one user. The Management in its reply stated (September 2009) that common users had display authorisation only for reporting purposes. The Management's reply is not factually correct as on verification it was found that Common User IDs were still carrying create / change / cancel / delete authorisations.

- In the absence of corporate IT policy, different virus, malware, spyware protection softwares being used at different offices and sites. Further, internet content could not be filtered through a uniform firewall policy. At Company's Information Hub, it was observed that (a) although a fire wall was in place at the premises, the firewall rules to censor the web content and monitoring were yet to be framed and (b) the firewall in place was not enough to maintain a log of instances of attempts and instances of actual breach into the Company's Network / firewall internally or externally. The Management accepted the observation (September 2009) and informed that they were trying to ensure Network Security through a policy which was being finalised.

[4] ***User Administrator Group in a SAP environment.***
[5] ***A command in the system to carry out a transaction.***

- There are two Disaster Recovery Sites: one at Gurgaon, which is the Near Recovery Site (NRS) and second is the Disaster Recovery Centre (DRC) at Sanganer, Jaipur. It was observed that the Company was only carrying out a communication drill to check the functionality of the DRC and no operational drill was carried out to ensure restarting of complete and accurate operations in the event of an incident. The Management stated (September 2009) that the DRC at Jaipur was used for reporting purposes daily. Incidentally, the DRC was completely damaged (October 2009) during a fire at Sanganer Oil Terminal, Jaipur and became non-operational and the Company is using the NRS at Gurgaon for its backup requirement. The Management has not yet decided on a new DRC. The Management stated (February 2010) that it has planned to put in place a new remote DRC by March 2012.

4.2.5.2 Finance module

Finance Module (FI) is designed for management of the processes involved in preparation of the accounts. The FI Module has inter-linkages with all the modules in the ERP system and consolidates all the financial information to generate the financial statement of the Company. The IT audit has been conducted keeping in view the importance and criticality of the efficacy of FI module in the preparation and generation of the accounts of the Company. The following deficiencies were observed in the finance module due to which the reports generated from the system could not be relied upon:

- The date of commencement of depreciation was 3 to 14 months prior to the date of capitalisation in respect of 15,805 assets and it was 1 to 15 months after the date of capitalisation in respect of 4,391 assets.

- Depreciation rates as per Schedule XIV of the Companies Act were not adopted in respect of 2,550 assets.

- The quantity was indicated as zero in 27,011 assets worth Rs. 652 crore and, thus, the correctness of depreciation provided could not be ensured.

- Analysis of purchase orders/Work orders released through the system showed that in respect of service contracts, POs/WOs were created (19,406 in 2007-08 and 12,705 in 2008-09) in the system only at the time or after the receipt of goods/invoices for the services rendered (details given to the Company).

- GR/IR is an intermediary account used for payments against goods received. Analysis showed that more than three lakh entries amounting to Rs. 2091.12 crore were pending clearance ranging from one to four years indicating lack of proper monitoring by the Company.

- It was observed that, though the stock balances are maintained in the system the valuation of stocks is done outside the system which defeated the purpose of the ERP system.

- The Company decides and assigns credit limits to various categories of customers which are accordingly entered into the system. Analysis of data on credit limit

extended to customers showed that, there were inadequate validation checks with the credit limits maintained in the system that resulted in overdue amount of Rs. 294.89 crore in respect of 293 customers who had exceeded their credit limit.

- Each customer is allotted a unique code. However, there was more than one customer code assigned to the same customer in 1,552 cases in the customer master.

The Management accepted the observations made by audit and stated that the rectification process had been initiated.

4.2.5.3 Conclusion

The Company implemented SAP ERP system with the view to standardise and streamline the day-to-day operations of all the units on a common IT platform. For this objective to be fulfilled it is imperative that the confidentiality, availability and integrity of business information is beyond doubt. Information of such a nature can only be secured through a secure and impenetrable IT environment. The Company has not yet formed an IT policy for its IT environment which includes its SAP system, to direct its actions and efforts. Different security measures were in place at different offices of the Company signifying inconsistency. Lacunas were also found in Network Security and Disaster Recovery set-up. The FI module was implemented to consolidate and generate the financial statements of the Company and also to generate various MIS reports to facilitate decision-making. The observations brought out in the report indicate inadequacies of various controls in the system which have implications in the financial reports generated through the system.

4.2.6 Neyveli Lignite Corporation Limited

Neyveli Lignite Corporation Limited has an integrated power generating facility consisting of lignite mines and Thermal Power Stations. The Material Management (MM) Department of the Company centrally controls the inventory management of the Company catering to the needs of all units through sub stores attached to the respective units. The Company was using a COBOL based batch processing system for its inventory management. In March 2002, the Company placed an order on the Indian Institute of Technology (IIT), Kharagpur for development and implementation of Online Integrated Material Management System (OLIMMS) at a cost of Rs. 2.05 crore with the objective of re-engineering the existing legacy system to make it more responsive to reduce ordering costs by at least 40 *per cent* and lead time by at least 50 *per cent* and automation of demand forecasting and scientific inventory control for all items including slow moving spares *etc.* The Company implemented OLIMMS in October 2006. However, it was observed that the desired benefits were not accrued to the Company as detailed below:

- Better Inventory control could be achieved through well defined Decision Support System (DSS) comprising of Economic Ordering Quantity (EOQ), Re-order Quantity (ROQ), Re-order Level (ROL), Safety stock, Minimum Level, Maximum Level *etc.* This would require data on procurement and consumption for three to five years which could lead to reduction in ordering cost, optimal inventory holding and minimum inventory carrying cost. The Company is having a system generated DSS for economic indenting purpose. The system generates an economic quantity for each and every material based on past consumption pattern, whenever an indent is raised. However, during

implementation of OLIMMS, the Company could not import the legacy data and, hence, could not use the data available for effective inventory management as per the above said inventory levels. The Management stated (October 2009) that as other stores were not computerised at the time of introduction of OLIMMS all legacy data could not be imported for DSS purpose and after getting required data over years, the same could be utilised for effective DSS.

- The indented quantity in respect of 5,979 out of 33,787 material codes was in excess of system calculated economic quantity up to 100 times. This indicated non observance of control over the system as per the system generated economic quantity. It was further observed that though OLIMMS provided for recording the reasons thereon, in majority of the cases (4,823 cases) no reasons were found recorded. While accepting the observation, Management stated (June 2009) that providing suitable reasons would be made mandatory during restructuring of OLIMMS.

- The closing stock value of stores and spares as at the year end exhibited in the financial reports comprised of stock balance generated from OLIMMS and the value of materials lying at site as reported by respective units through the reports prepared manually. Manual intervention in this regard affected the true and fair view of financial reports. The Management agreed (October 2009) to take care of this during restructuring of OLIMMS.

- The delivery status, in respect of 498 Purchase Orders against which more than 90 per cent of the ordered quantity was received, was still indicated as partial supply instead of treating them as completed. In respect of 37 purchase orders against which the ordered quantity was received in full, the delivery status still indicated as partial supply. The Management stated (October 2009) that detailed review would be done and issue would be taken up with IIT Kharagpur for necessary action/correction.

4.2.6.1 Security controls

Following weaknesses and deficiencies were observed in the security controls:

- The MM Department did not have an approved/documented IT Security policy.

- Data analysis showed that users have been allowed to have many IDs (2 to 29 IDs). Multiple user IDs would result in weak monitoring practice.

- The Company did not have a documented/approved password policy. Data analysis showed that same password is being used by many users. For example out of 6,426 active User IDs available, 4,503 users (70 *per cent* of the users) including many senior level officers having approval authority in the work flow hierarchy, use the same password. As the Company has a customary practice of using a particular employee related information as user ID, risk of unauthorised access to the system was large, since common passwords were used and the user IDs were easily predictable.

The Management stated (October 2009) that the employees were required to be identified in more than one location and, hence, many IDs were given. The password change policy was framed and design changes were done in accordance with the framed policy.

4.2.6.2 Conclusion

OLIMMS was implemented with the primary objective of achieving reduction in lead time, automation of demand forecasting and scientific inventory control. The Company could not utilise the application for effective inventory control. Failure to import legacy data and non updation of required parameters in the system resulted in inadequate Decision Support System. The input controls were deficient and the integrity of data could not be assured due to deficiencies in access controls.

4.2.7 BEML Limited

BEML Limited was earlier using various in house developed applications for finance, planning, purchase and inventory. In order to ensure effective utilisation of the Company resources and also to ensure connectivity among various divisions, corporate office, marketing division including its regional and district offices, the Management decided (August 2004) to implement companywide Enterprise Resource Planning (ERP). The Company selected SAP-ERP (mySAP ERP) software for implementation covering basic modules. SAP system was implemented (October 2007) by Siemens Information Systems Limited (SISL) at a cost of Rs. 6.80 crore. Later, in order to strengthen the Business operations, the Company procured and implemented SAP-Supply Chain Management software through SISL at a cost of Rs. 6.00 crore. Audit scrutiny revealed that the Company could not realise the above benefits entirely, due to the following:

- SAP system allowed posting of the transactions relating to two months at any given point of time *i.e*. previous month and current month. Normally if the system was an on-line one, the data entry on the respective months would be allowed on the first of every month, so that the transactions can be captured as it happens. However, opening of the periods got delayed (up to 87 days) due to back log of data entry indicating system has not been made on line even though the system was made 'Go Live' in October 2007.

- Though SAP provided for mapping of various delegations of powers for release of purchase orders, sale orders, *etc.*, the same were not mapped into the system. The Management stated (October 2009) that the release of purchase orders through ERP would be explored.

- The Company continued uploading the materials balances even after the system went (October 2007) 'Go live' indicating incomplete migration of data into the system. As uploading of materials has one sided influence on inventories and its values in the financial accounts, these transactions should be avoided after 'Go live' of the system. The Management stated (October 2009) that these transactions were related to marketing divisions which had 'gone live' from 1 April 2008. The reply is not acceptable since these type of transactions were effected after 1 April 2008.

Audit also reviewed the general performance of two modules of SAP, *i.e*., production planning and materials management modules, which revealed the following:

4.2.7.1 Production planning

Due to the back log of data entry the validation checks built in SAP system were not enabled and the system accepted:

- the dates of delivery of finished goods prior to the date of opening of the production orders;
- drawal of material even before opening of the respective production order and after the completion of such manufacturing activity;
- closing of production orders and delivery of goods even when there were incomplete drawal of materials required for production;
- the dates of invoice/billing prior to date of opening of respective production orders;
- issue of materials even before receipt of materials from the suppliers resulting in issue of 1,323 materials valuing Rs. 185.50 crore during March 2009; and
- 676 purchase requisitions with the requirement dates prior to the request date.

From the above, it may be observed that there were inconsistencies in the dates relating to various stages of the production orders; purchase requisition dates and drawl of materials for the production. Hence, the data relating to the production planning available in the system was not reliable and dependable. The Management stated (October 2009) that as the ERP was in the initial stage of stabilisation, all the checks could not be introduced and efforts would be made to enforce controls in the system upon stabilisation of system.

4.2.7.2 Materials management

The following discrepancies were noticed in the material management module:

- It was observed that system accounted the materials and delivered the materials without the quality inspection checks due to deficient validation checks. The Management accepted (October 2009) this deficiency and agreed to address the issue in future.
- On test check of some of the materials in the inventory, the system permitted the issue of materials by adopting other than the then existing weighted average rates. The Management stated (October 2009) that the discrepancy observed was due to considering the transaction date for calculation of moving average price instead of following the entry date. The reply is not acceptable since the system recognises the transaction date only in the financial accounts.
- The system released payment of Rs. 18.10 crore due to one vendor/supplier through another vendor indicating that the controls for effecting payments to relevant vendor through Company account were absent. Similarly, system accepted payment related to a sale of equipment from the customer other than the customer invoiced. The Management stated (October 2009), that due to tripartite agreement, payment was released to another vendor.

- In the year 2008-09, while accounting the transfer of materials valued at Rs. 4.01 crore from manufacturing divisions to marketing divisions, instead of reducing inventory account, the same has been accounted as expenditure in Profit and Loss account. The Management stated (July 2009) that corrective action would be taken during 2009-10.

4.2.7.3 Conclusion

The Company decided to implement SAP with the objective of Companywide networking and common integrated applications across the organisation, ensuring availability of centralised MIS data which would help in decision making. System is not on-line due to delay in capturing of transactions. Failure to design the required controls in the system, inappropriate customisation, lack of validation checks and inadequate controls during data migration resulted in non-utilisation of the SAP system to its full potential and the integrity and accuracy of the data could not be ensured. Thus, the attempt made by the Company to have centralised MIS data could not yield the desired results.

The matter was reported to the Ministries in February 2010; their replies were awaited (March 2010).