GSPC Gas Company Limited

2.2 IT Audit on GSPC Gas Company Limited

Executive Summary

Introduction

GSPC Gas Company Limited (Company) was incorporated on 11 March 1999. The Company supplies compressed natural gas through 160 stations and piped natural gas to domestic households, commercial and non-commercial customers and industrial customers. The Company embarked into major computerisation in April 2010 by implementation of Enterprise Resource Planning (ERP) software SAP at a cost of ` 22.58 crore. The system was made operational with effect from 11 Febuary 2011.

Audit of operation and maintenance

Though the Company implemented ERP system for more than three years, it did not formulate business Continuity and Disaster Recovery Plan.

Material Management (MM) module

In the MM module meant for managing material planning, procurement and inventory management of the organisation, purchase orders were issued without purchase requisitions. Further, purchase orders were issued without delivery dates. Also, there were delays in posting of goods issued and receipt document and non-availability of guarantee/warranty feature.

Financial Accounting and Controlling (FICO) module

The FICO module meant for capturing all financial processing transactions and providing cost centre wise operational information was not monitoring defaulting consumers and bank guarantee renewals through the system. The regional trial balances were not generated. Further physical verification of assets was not updated in SAP.

Human Capital Management (HCM) module

The HCM module aimed to automate employee administration, time management, pay-roll management and legal reporting process. There was no means to determine the genuineness of conveyance allowance reimbursement and dependency status was not updated.

Process Integration (PI) module

The PI module was not utilised for integrating existing systems of the Company with SAP.

Recommendations

The Company should review the segregation of duties and authorisations to prevent chances of fraud and other irregularities and should utilise all functionalities of the modules and monitor important areas through the system by updating all the fields. All the systems should be integrated to have an online single point MIS for effective control and avoiding dependence on manual controls.

Introduction

2.2.1 GSPC Gas Company Limited (the Company) was incorporated on 11 March 1999. The Company supplies natural gas in the form of Compressed Natural Gas (CNG) through 160 CNG stations across the state that caters to more than 90,000 vehicles per day. The Company also supplies Piped Natural Gas (PNG) to 5,11,561 domestic households, 1,967 commercial and non-commercial customers and 1,942 industrial customers. Net Loss of the Company for the year 2013-14 was ` 134.68 crore, on a turnover of ` 4,617.75 crore. The management of the Company is vested in Board of Directors (BoD) consisting of five directors, including a Chairman. The Chief Executive Officer of the Company looks after the day-to-day functioning.

IT Programmes implemented by the Company

2.2.2 The Company embarked upon a major computerisation by undertaking the implementation of Enterprise Resource Planning (ERP) software SAP[17] in April 2010. SAP ERP is an integrated software solution that incorporates the key business functions of the organisation. The platforms for the modules used by the Company are UNIX and Windows and the Database Management Systems are Oracle and Max DB.

The Company selected SAP for licence and implementation of the ERP software and incurred an expenditure of ` 22.58 crore on its implementation. The SAP project started in June 2010 was scheduled for completion in the first quarter of 2011. The system was made operational (Go Live) with effect from 11 February 2011. Thus, the SAP implementation was done within the time schedule fixed. The Company implemented various SAP modules which included:

- Maintenance of financial data and Balance Sheet generation of all other reports as applicable from the accounting point of view **(FICO)**
- Automation of PNG meter for Bill Processing **(IS-U)**[18]
- Automation of customer registration and customer complaints **(CRM)**
- Maintaining customer wise Contract Accounting **(FICA)**
- Tracking of Material Management **(MM)**
- Automation of O&M and Project activities **(PM/CS)**
- Tracking of new Projects and Capitalisation **(PS)**
- Automation of CNG meter and Bill Processing
- Maintenance of Employee Master Data and Payroll generation **(HCM)**
- Generation of MIS Reports **(BW)**
- Integration of Third Party Application to SAP **(PI)**

[17] SAP stands for Systems, Application and Products in Data Processing.
[18] Industry specific solution for utilities.

- Online access of Pay Slips and Leave for Employees **(EP)**
- Handling of all SAP modules **(BASIS)**
- Tracking of SAP changes -Solution Management **(SOLMAN)**
- Uploading of the scanned documents of customers or vendors- Document Management System **(DMS)**

Scope of Audit

2.2.3 The IT Audit was conducted during the period from 11 February 2014 to 17 June 2014. Out of the above 15 SAP modules implemented by the Company, six modules i.e., FICO, MM, PI, SOLMAN, HCM and EP were selected for detailed audit. We visited three Geographical Area (Location) units *viz.*, Rajkot, Valsad (set up at Vapi) and Nadiad to assess the efficiency and effectiveness of the ERP at the location level. Two store locations i.e., Vapi (Chikhali) and Gandhinagar were also covered.

Audit objectives

2.2.4 The objectives of IT audit were to get a reasonable assurance that:

- The system development was managed efficiently and effectively and the objectives of SAP were achieved;
- IT controls were in place in the Company; and
- The documentation standards, the input controls, processing controls, output controls and data file controls were maintained in respect of the six selected modules.

Audit criteria

2.2.5 The requirement, acquisition and performance of ERP software (SAP) of the Company were assessed by utilising the following audit criteria:

- Feasibility reports and project reports;
- Agreements with software companies;
- Company's perspective plans/ corporate plan/ annual plans;
- Agenda and minutes of the BoD and its subsidiary committees;
- Gujarat State Financial Rules, circulars issued by the Company, Government of Gujarat (GoG) resolutions, PNGRB guidelines, etc.; and
- Users' Manual of the application delivered by the Software Company.

Audit Methodology

2.2.6 The following methodology was used for the above audit.

- Reviewed SAP modules i.e. FICO, MM, PI, SOLMAN and HR (HCM & EP) implementation plans;
- Reviewed data on existing Tally Software and HR systems including data collected and data suitability to SAP modules i.e., FICO, MM, PI, SOLMAN and HR tables;
- Reviewed Business Blueprints Build process and System Architecture[19]; and
- Assessed the efficiency and effectiveness in the operations and activities of the Company after the implementation and adoption of IT systems in various departments.

We acknowledge the co-operation extended by the Company during the course of audit. An entry conference was held on 27 May 2014 at the level of CEO in which the audit objectives and methodology were explained to the management of the Company. The exit conference was held on 14 October 2014. Responses received during the course of Audit are suitably incorporated at relevant paragraphs.

Audit Findings

Audit of operation and maintenance

2.2.7 Audit of operation and maintenance was done to ensure there existed necessary internal controls, organisation controls and authorisation controls to prevent frauds and errors.

Password policy

2.2.7.1 The National Informatics Centre (NIC) prescribed password policy that contains various specifications for passwords like having Upper & Lower case, not containing dictionary words, etc. Further, previous three passwords should not be used and that the password had to be regularly changed.

We observed that the Company was not having a password policy since inception. After our enquiry, a password policy was framed and circulated to all concerned with the approval of General Manager. The requirements prescribed in the NIC password policy were not insisted in the circulated policy.

The Company did not even insist for the strict compliance of the password policy framed by it and rather generic (easily guessable) words like GSPC, GAS, SAP, GUJARAT and even the names of the individuals were used as a password. This could lead to a) risk of unauthorised access b) vulnerability of the entire database.

[19] GSPC Gas has 3 tier client/server Architecture for SAP System. All data is stored in a database, and the data is processed in the application layer on the application servers. The SAP GUI frontend (presentation layer) is the interface to the user. All three layers are connected to each other with networks.

The Management (May 2014/September 2014) assured that for the sake of strengthening the password policy, it would refer NIC password policy.

Generic user names with overlapping authorisation

2.2.7.2 Provision was available in SAP to assign roles and authorisation to different users and to maintain log and audit trail. Seventy eight generic user names (group user names) were provided. However, a review/ monitoring of changing the password for employees leaving the Company was not being carried out. On a detailed analysis of three generic user names (group user names) of C & M wing, we observed that at least half a dozen officials were using the same user name and password. Hence, responsibility and accountability was diluted and it increased the risk of unauthorised access to data in case of any transaction taking place under the 78 generic user names (group user names).

During review of MM module, it was found that users enjoyed various combinations of critical transactions, the details of which are as follows:

- 275 users were authorised to create Purchase Requisition (PR) and out of that 10 users were authorised to approve the PR;
- 96 users were authorised to create Purchase Orders (PO) and out of that six users were authorised to approve the PO; and
- 15 users were assigned roles to receive goods (Enter Goods Receipt) and out of them 13 users were authorised to process vendor invoices.

We have also noticed some peculiar authorisations as listed below, which can result in misuse of authorisation powers; with the risk of fraud and other irregularities.

Sr. Manager is authorised to:

- create PR,
- release PR,
- create PO,
- release PO,
- enter goods issue,
- enter goods receipt, and
- purchase analysis.

He is also authorised to:

- create Request For Quotation (RFQ),
- create model service specification,
- create service entry sheet and
- release service entry sheet.

AGM is also authorised to:

- create PR,
- create PO,

- release PO,
- enter goods issue,
- enter goods receipt,
- purchase analysis, and
- create RFQ.

The usage of generic name combined with authorisation for various combinations of transactions as stated above carries risk of misuse and fraud. We observed that a fraud occurred at Halol office because of the fact that the power to reverse a bill and generate and regenerate bills was retained with the same person. The said employee took advantage of these multiple powers and reversed bills already paid by the customer, pocketed the proceeds of the bill already paid by the customer and regenerated the bill in the system to show that the bill was outstanding. This regenerated bill was not issued to the customer, hence the customer never complained.

The Management accepted (March 2014) the fact that it has not prescribed roles and responsibilities for its employees and stated that efforts towards segregation of duties have already been initiated. The Management also stated (May 2014/September 2014) that generic names were created to save license cost and recurring AMC cost and also stated that users enjoying various combinations of critical transactions were being reviewed for required rectification.

Business continuity and disaster recovery

2.2.7.3 Though the Company implemented ERP system for more than three years, it did not formulate business Continuity and Disaster Recovery Plan. On this being pointed out, the Company came out with a Business Continuity and Disaster Recovery Policy cum strategy in May 2014 without informing the Board of Directors. Having a policy (after more than three years of implementation of ERP) without informing the BoD is in violation of prudent practices which requires all policy decision to be taken with the knowledge of the BoD.

The BoD approved the Business Continuity and Disaster Recovery Policy cum strategy on 18 October 2014, which needs to be implemented.

Application Controls

2.2.8 The six selected modules were reviewed for documentation standards, input controls, output controls and data entry controls.

Material Management Module

2.2.9 SAP Materials Management (MM) helps in managing material requirement planning (MRP), the procurement activity and inventory management (IM) of an organisation. MM is also integrated with other business modules. The MM module has enabled the configuration of the entire

procurement right from purchase order release to inventory management *via* multiple storage locations.

Purchase Orders issued without Purchase Requisition

2.2.9.1 After implementation of SAP, there is a procedure that purchase order (PO) is issued through the system after getting a Purchase Requisition (PR) from the user department. However, we observed that many POs were issued without PRs being entered in the system as tabulated below:

Table 2.2.1: POs without PRs

Sl. No.	Year	Total No. of Pos	No. of POs without PR	Value of POs without PR (` in Crore)
1	2013-14	1,172	1,003	328.90
2	2012-13	1,042	890	271.40
3	2011-12	1,414	1,314	717.58
Total			**3,207**	**1,317.88**

It can be inferred from the above table that during three years (2011-2014) the Company issued 3207 POs worth ` 1317.88 crore without having any formal PR in the system. A PR in the system is the starting point in the procurement cycle and will enable analysis of pending PRs at any given time and time taken for issue of POs after receipt of PRs. It will also help in the online assessment of requirement from different departments and in clubbing POs of similar nature. Further, it will also help in checking duplicate/excess requirements.

The Management accepted (March 2014/September 2014) the fact that these POs were issued without PRs in the system and also stated that as per the Company's requirement, hard copy of the approved note/PR is a must for processing the PO.

Fact remains that having PRs in hard copy is nothing but continued reliance on the manual system even after implementation of the SAP. Though having a PR in hard copy will satisfy the procedural requirements, the control requirements inbuilt in the system, the availability of data for future analysis will be satisfied only if the PR is routed through the system before any PO is issued. It would also be helpful in proper and definite assessment of requirement before issue of any PO.

POs without delivery dates

2.2.9.2 On a review of the POs, we observed that 1,420 POs worth ` 216.62 crore were issued without the delivery dates. These POs were issued from January 2011 to April 2014. In the absence of delivery dates, there can be no monitoring of performance against scheduled delivery dates and SAP features based on delivery dates will not get activated.

The Management stated (May 2014) that it would re-visit the process for ensuring system entry for validity period to the possible extent by meeting business requirement.

Posting of goods issue and receipts

2.2.9.3 Goods receipts and Goods issue documents should be posted immediately in the system as they are the basis on which total issues to a department or total goods received during a given period of time are worked out. Undue delays in their postings can lead to understatement of figures of issues and receipts generated by the system. We have noticed considerable delays in posting of issue and receipts as tabulated below during the period 2011-12 to 2013-14.

Table 2.2.2: Delay in posting of Goods receipt/issue documents

Sl. No.	Particulars	Numbers	Value (` in Crore)	Delay in days
1.	Goods issue documents	401	-	> 30 days
2.	Goods issue documents	8,300	-	1 – 30 days
3.	Goods receipt documents	199	48.69	> 30 days
4.	Goods receipt documents	3,361	204.42	1 – 30 days

The Management stated (May 2014/September 2014) that every year the delay in posting of documents is decreasing, which establishes that it has taken necessary measures. It added that further emphasis would be given to minimise processing delays.

Availability of guarantee/warranty features

2.2.9.4 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 Management assured (May 2014/September 2014) that it would explore the possibility.

Utilisation of reminder feature

2.2.9.5 Standard SAP-ERP system has an inbuilt reminder features for keeping track of the POs issued. This feature, however, was not being used and the reminders were being issued manually. There were 2,845 numbers of materials in various POs which remained undelivered or partly delivered beyond their delivery dates as on 31 March 2014, for which reminders were not generated through the system despite availability of such a feature in SAP.

The Management accepted (May 2014/September 2014) the observation by stating that after taking inputs from the business process owners, it would initiate separate configuration.

Discrepancy Report functionality not used

2.2.9.6 SAP system provides a functionality of Discrepancy Report (DR), which incorporates all the issues of poor quality material, short receipt, wrong supply, transit damages, non-delivery or damage/breakage of material, rejection, etc. However, we observed that the Company was not using this

functionality of SAP. The Company should generate the DR so as to have a proper control on materials.

The Management stated (May 2014/September 2014) that it would review the process of development of such reports.

Financial Accounting and Controlling Module

2.2.10 SAP Financial Accounting (FI) is the core module where all the financial processing transactions are captured. This is the module that is used to create statutory Financial Statements for external reporting purposes i.e., Balance Sheet and Profit and Loss Statement. Functions in SAP FI can primarily be divided into General Ledger Accounting, Accounts Receivable and Accounts Payable processing, and Fixed Asset Accounting.

SAP **Co**ntrolling (CO) provides details of cost center-wise operational information to the management of a Company to support business analysis and decision-making. Controlling also represents the internal accounting viewpoint of an organisation. It provides information to managers to help manage costs and operations of the organisation.

SAP Financial Accounting and Controlling (FICO) Module integrates with various other SAP Modules. All accounting-relevant transactions which are made are posted real-time to FICO by automatic account determination. The FICO module has enabled the generation of all required financial information and release of transaction based invoice documents through the system.

Monitoring of defaulting customers

2.2.10.1 The Company provides grace period to its customers for bill payment as 21 days, 10 days and seven days for domestic, commercial/non-commercial and industrial categories respectively. If the customer does not adhere to the grace period, then delayed payment charges are levied on the customer, which are included in the next billing cycle.

However, we noticed that in case when the outstanding amount of any customer exceeds the security deposit or bank guarantee amount given by him, there is no provision in SAP wherein any flagging is done. In the absence of such provisions in SAP, monitoring of customers outstanding is done through review committee meetings as and when held. Resultantly, as on 31 March 2014, debtors worth ` 2.20 crore were over six months old.

The Management assured (May 2014/ September 2014) that it would ensure regular follow up of defaulting customer by generating system based reminders through SAP. However, the fact remains that charging delayed payment charges and increasing the arrear amount will not prevent arrears from mounting unless the functionality as stated above is added.

Renewal of Bank Guarantee

2.2.10.2 The Company takes bank guarantee (Guarantee) from its commercial and industrial customers at the time of signing of Gas Selling Agreement to protect its financial interest in case of non-payment of bills by the customers. We observed that SAP system did not provide updated information about outstanding guarantees. During the period December 2013 to February 2014, 119 guarantees had expired but there was no information available in SAP to know whether these expired guarantees had been renewed or not. As per details provided by the Company, out of these 119 guarantees, 105 had already been renewed but details of renewal had not been updated in SAP. Even out of 105 guarantees renewed, 22 guarantees were renewed with a delay of one to 41 days. The remaining 14 guarantees were renewed (14 to 21 February 2014) only after the expiry was pointed out (13 February 2014) by Audit.

The Management accepted (March 2014 and May 2014) the observation and stated that monitoring of guarantees would be done through SAP system to prevent the non-renewal and delay that occurred in the cases mentioned above.

During a test check of 634 customers pertaining to Morbi location, we observed that in case of 110 customers, the guarantee periods were not entered. As the calculation of guarantee amount is dependent on the period, the correctness of the guarantee amount entered in SAP could not be verified.

The Management accepted (September 2014) the above observation and assured compliance.

Region-wise trial balance

2.2.10.3 The system was not envisaged to generate region-wise trial balances (TB) although separate regional cost centers were maintained. The Company is having nine regions viz., Nadiad, Navsari, Rajkot, Surendranagar, Jamnagar, Khambhat, Valsad, Palej and Gandhinagar. Though the system was capable of generating region-wise trial balances, the same was not utilised which deprived the Company the benefit of utilisation of SAP to the full extent for various analyses in financial matters.

The Management stated (February 2014/September 2014) that the system is capable of generating region wise TB and it may explore the possibility of using this feature.

Generation of TDS from the system

2.2.10.4 SAP provides the functionality to generate quarterly returns and TDS certificates from the system. We observed that the Company did not use this functionality of the system and continued to get the TDS return prepared through the tax consultant while appointing them for tax audit and assessment proceedings for the years 2011-12, 2012-13 and 2013-14.

The Management stated (May 2014/September 2014) that it would explore using the SAP functionality for filing TDS return.

Physical Verification of Assets not updated in SAP

2.2.10.5 The physical verification (PV) of assets is conducted regularly. However, the records of physical verification of assets are not being updated in the SAP.

The Management stated (February 2014/September 2014) that SAP was capable of updating Asset Master records with PV and it would be done.

Human Capital Management Module

2.2.11 SAP HCM (Human Capital Management) is an ERP Software aimed to automate mainly employee administration, time management, payroll management and legal reporting process etc. EP (Employee Portal) is basically an employee related database with viewing rights to each employee. SAP HCM ERP is the managing system which encompasses essentially Organisation Management (OM), Personnel Administration (PA), Time Management (TM), Payroll Management (PY), and Employee Self-Services Portal (ESS).

OM segment manages a gamut of organisational information for Organisation Units (O), Positions (S), Jobs (C) and Tasks (T). PA segment consolidates all workforce related and core process and data on to single platform. TM segment covers by and large all time management and leave related affairs. PY segment provides seamless and effective solutions to a series of payroll services. ESS segment allows employees to view payment details, view and update personal information and submit vacation requests from their Web browsers.

The HCM Module has enabled configuration of employee master data, structure management and payroll run for all employees, besides facilitating various employee portal facilities.

Reimbursement of conveyance allowance

2.2.11.1 The Company has a system of granting conveyance allowance to contractual employees and petrol allowance to regular employees. The contractual employees submit petrol bills for claiming income tax exemption towards conveyance allowance over and above the allowable limits under the Income Tax Act and regular employees submit bills for claiming income tax exemption for the petrol allowance.

We observed that though conveyance and petrol allowances were routed through SAP, the vehicles numbers against which the reimbursements were claimed, though required to be entered as a field under SAP, were not entered as the same was not mandatory. Therefore, there was no means to determine the genuineness of the claims for petrol and conveyance allowance.

Dependency status

2.2.11.2 The marital/employment status of daughters for deciding the dependency was not monitored through the system due to non-updation of such status in the system. Further, in some of the cases, parents of the employees were also treated as dependents without verifying their actual status. It is suggested that checks should be created in the system to verify the data regarding dependency status or status as manually verified should be updated in the system.

Process Integration (PI) Module

2.2.12 SAP Net Weaver Process Integration (SAP PI) is SAP enterprise application integration software, a component of the Net Weaver product group used to facilitate the exchange of information among Company's internal software and systems and those of external parties. SAP PI is necessary to integrate the SAP system with the pre-existing Non-SAP system. It is also single point integration for all systems of SAP.

The PI has enabled real time and secured integration of spot billing mobile based application with SAP for on-the-spot meter reading and bill generation at the same time.

Mapping of other application/software with SAP

2.2.12.1 The system was not designed to provide for mapping of the business needs of other application/software used by the Company which resulted in deviations with accepted practices. These systems are private applications purchased by Company before opting to go for SAP. A few illustrative deficiencies noted are indicated below:

- **Geographical information system (GIS) Application:** This application is used for tracking pipeline network across Gujarat. This application can be used to verify the genuineness of the invoices raised by the contractors. It can also be helpful to know the alternate route which can be cost effective also. If viewing rights are given to all end users, it can be used as a ready reckoner apart from its use in emergent situations.
- **Automatic Meter Reading (AMR) Application:** This application is installed in the meters of a few of the industrial customers wherein meter reading is automatically transmitted to a receiver at a zonal office. These readings are saved in AMR and then manually uploaded in SAP. However, as on date no mapping with SAP is being done which resulted in reliance on manual procedures.
- **Vehicle Tracking System (VTS):** This application is used for tracking LCV vehicles hired from the private operators. There are various types of penalty which can be levied based on the violation of the norms fixed for the operation of the vehicle. However, as on date no mapping with SAP is being done with the result that the Company had to rely on manual procedures.

- **Biometric System (BS) Application:** 'Biometric System" (BS) (17 units) was procured and installed in the Company (August 2011 to April 2013) for 'attendance monitoring system' at cost of ` 3.53 lakh. The annual maintenance cost was 15 *per cent* of the basic cost. The authorisation as well as taking reports from the BS is kept with HR Department and IT Department is giving technical support only. However, the biometric system has not been integrated with SAP despite three years of SAP existence.

The Management accepted (March 2014/September 2014) the fact that they had not integrated various applications like GIS, AMR, VTS, and BS with ERP. The Company assured that it would explore the possibility of integrating other applications with ERP.

Solution Manager Module

2.2.13 SAP Solution Manager (SOLMAN) is a centralised help desk provided to SAP's customers as part of their license agreement. As any SAP system landscape may include a large number of installed SAP and non-SAP systems, SOLMAN is intended to reduce and centralise the management of these systems and end-to-end business processes. SOLMAN early watch system has been configured for system performance management and fine tuning.

We observed that SAP solution has a centralised helpdesk in place to redress the problems faced by users in SAP environment. Each such communication made to the centralised helpdesk is called a ticket[20]. Range of time taken for resolution of tickets raised during February 2011 to February 2014 is tabulated below:

Table 2.2.3: Time taken for handling of tickets

Sl. No.	Types of action	Total Numbers	Range (days)
1	Confirmed tickets (Tickets in which solution has been given and confirmed by the Company)	2,420	0-351
2	Customer Action pending (Tickets which have not been confirmed as solved by the Company)	79	0-209
3	In process at different stages (Ticket pending solution)	249	0-345
Grand Total		**2,748**	

It can be seen from the table above that even the 2420 tickets which were confirmed with a delay of 0-351 days, there were 45 very high and high priority tickets wherein the delays were more than 100 days. The Company should lay down the time limits for confirmation atleast for very high and high priority tickets. In respect of 79 tickets which were pending settlement for

[20] Tickets are the errors or bugs forwarded by the end users, prioritised as per severity into high, medium and low, to the support team for resolving in a time bound manner along with suggestions wherever feasible.

want of confirmation from the Company, the same should have been given and the cases closed. In respect of 249 tickets which were in process, 155 tickets had high and very high priority ratings and in nine out of them 100-345 days had already been lapsed. The company needs to monitor this area and ensure timely solution of user tickets.

The Management accepted (February 2014) the fact that there was delay in resolving the problems of users but has also stated that the delay for more than 30 days was very less. The Management also stated (September 2014) that as on date, all pending tickets have been closed in SOLMAN and the actual status of tickets are updated.

The matter was reported to Government (August 2014); they have endorsed (October 2014) the replies of the Management.

Conclusions and Recommendations

The Company embarked upon major computerisation in the year 2010-11 by the implementation of ERP software SAP. The system was made operational with effect from 11 February 2011 without any delay in the scheduled time line. The Company implemented various SAP modules encompassing the key business operations of the organisation. However, certain deficiencies were noticed in the operation and maintenance of the system and implementation of individual modules reviewed as discussed below:

- The operation and maintenance of the system did not have an approved password policy and authorisation with required checks and balances.
  - ***The Company should review the segregation of duties and authorisation to minimise the possibility of the risk of misuse or fraud. The Disaster Recovery Plan needs to be implemented.***

- The Material Management module was deficient in terms of validation checks and input controls as purchase orders were issued without requisitions and there were delays in posting.
  - ***The Company should utilise all the functionalities of the modules and monitor important areas through the system by updating all the fields.***

- The Financial Accounting and Controlling Module did not generate a region-wise trial balance. The physical verification of assets was not updated in the module and neither the defaulting customers nor the bank guarantee renewals were monitored through the module.
  - ***Input controls and validation checks needs to be exercised to ensure generation of correct and required output from all the modules. The Company should minimise dependency on manual controls.***

- The Process Integration Module was not fully utilised to integrate existing systems of the Company with SAP, and the SOLMAN module meant to be a centralised help desk was not effective in providing immediate solution to problems.

  - ***The Company should integrate all the systems to have an on-line single point MIS.***