OVERVIEW

This volume of Audit Report contains reviews on 10 selected areas of operation involving 18 Public Sector Undertakings under 10 Ministries. These areas were selected in audit for review on the basis of their relative importance in the functioning of the concerned organisation. The total financial implication of these reviews is Rs. 6305.73 crore.

MINISTRY OF CIVIL AVIATION

National Aviation Company of India Limited

Jet Engine Overhaul Shops

National Aviation Company of India Limited (Company) was incorporated on 30th March 2007 under the scheme of amalgamation of Air India Limited and Indian Airlines Limited. Erstwhile Indian Airlines Limited established (1991) a Jet Engine Overhaul Complex in Delhi (JEOC) and Air India had set up (1962) an Engine Overhaul Department in Mumbai (EOD). The Shops were certified by the Federal Aviation Authority (FAA), USA which enabled the Company to undertake the repair works of engines of other operators.

The main function of shops was to conduct mandatory and preventive maintenance of jet engines.

The performance audit of these shops revealed the following:

- Against the capacity to overhaul 48 V2500 engines per annum, the JEOC could utilize its capacity between 67 *per cent* and 83 *per cent* only, during the period 2004-05 to 2008-09. Due to lower production of engines, aircraft ranging from one to eleven were on ground for 1370 days during the above period. Thus, the Company lost potential revenue of approximately Rs. 291 crore.
- JEOC was unable to produce engines as per requirement during the period September 2005 to December 2006. To overcome the shortage, the Company had to take engines on lease. The Company incurred an extra expenditure of Rs. 34.68 crore on hiring of engines.
- Despite having in-house capability, the Company sent 23 engines and 18 HPC modules from JEOC to outside agencies for repair and incurred an expenditure of Rs. 498.66 crore, including an avoidable expenditure of Rs. 45.95 crore towards labour, transportation, mark up on material and testing charges.
- The Company carried out phoenix modification introduced by engine manufacturer M/s IAE in all of its engines at JEOC at a cost of Rs. 67.31 crore. It was, however, observed that on-wing life of the engine did not increase to the assured level and the envisaged benefits of reduction in maintenance cost were also not reaped.
- EOD, by and large, utilised its capacity fully during 2004-09.

MINISTRY OF COMMUNICATIONS AND INFORMATION TECHNOLOGY

Bharat Sanchar Nigam Limited

Functioning of Telecom maintenance regions

With a turnover of more than Rs. 35,812 crore and net profit of Rs. 575 crore for the financial year 2008-09 Bharat Sanchar Nigam Limited is one of the largest telecom service providers in India. The Company maintains a large transmission network comprising optical fiber cables and microwave systems through which 602 districts and 5.6 lakh villages in the country are connected.

Telecom Maintenance Regions of BSNL are the divisions responsible for the maintenance of long distance transmission systems of the Company. The four maintenance regions viz., Eastern, Northern, Southern and Western control more than 19,100 route kilometers of optical fiber cable and microwave systems functioning in the country. With the entry of private service providers into the telecommunication sector all operators essentially require interconnection with BSNL network. Provisioning of Points of Interconnect (POIs) and monitoring the long distance traffic through these POIs for correct realisation of interconnection usage charges is also an important area of activity for the Maintenance Regions.

The major findings of the performance audit are:

- Microwave systems costing Rs. 36.84 crore were either used for a very short period or were not put to use at all rendering the investment unfruitful. This was partly due to commissioning of microwave systems in routes where more stable optical fibre systems were already in operation.
- Delay in commissioning of 'Lawful Interception and Monitoring' systems led to idling of investment of Rs. 5.84 crore besides delay in start of International Private Leased Line services.
- Delay in finalisation of tariffs for use of signaling through Stand Alone Signaling Transfer Point system deprived the BSNL of projected profit of Rs. 329.30 crore per annum.
- Records on receipt and issue of stores received against all 94 purchase orders released during 2004-05 to 2008-09 were not maintained in Eastern Telecom Region.

MINISTRY OF DEFENCE

Hindustan Aeronautics Limited

Production and Supply of Advanced Light Helicopter

The Advanced Light Helicopter (ALH) designed and developed by the Company is a light 5.5 tonne class, multi-role, multi-mission helicopter, fitted with two Turbomeca TM 333 2B2 engines. A sum of Rs. 1,541 crore (Rs. 960 crore by the defence customer and Rs. 581 crore by the Company) was spent till September 2009 on the ALH project. Audit observed the following:

- The design and development of ALH started in 1984. The collaboration agreement entered in 1984 was terminated in 1995 even though certain systems were yet to be developed, validated and integrated. As a result, five prototypes of the basic versions which were to be certified by 1994 were actually flight tested and certified in October 2003.
- Despite more than two decades, the technical requirements finalised in 1979 by Army and Air Force were not fully achieved resulting in flying of the 74 ALH supplied by the Company to defence customers with concessions.
- Taking up Limited Series Production (LSP) of ALH (2001-2003) even while the prototypes were being flight tested (1992-2003) and certified, was premature as large number of design problems were encountered during the manufacturing.
- By not freezing the design of ALH and keeping the development stage open the Company had to accommodate the increasing demand of the customer for latest and additional requirements. This led to 363 modifications in 34 helicopters (total 74 supplied to Defence customers).
- The ALH, which was to be successor to Cheetah/Chetak was found to be unsuitable for the intended multi-role requirements due to excess weight and limited power of the engine. ALH with 'Shakti' (higher-powered engine) which was planned to be certified in December 2006 is yet to be certified even after a delay of three years resulting in postponement of delivery schedule of 20 ALH with Shakti engine from 2008-09 to 2009-10.
- Weapon system integration (WSI) version of ALH has not been developed even after a lapse of 10 years (1998 to 2009). In the absence of clear understanding of the requirements between Navy and the Company, the amount of Rs. 138 crore spent on the project has not resulted in any tangible benefit to the customer.
- The Company could not penetrate into the international market in the absence of international certificate in spite of showcasing ALH in the air shows. The Company could not successfully execute even the orders received from civil market.
- As against the envisaged indigenisation level of 50 *per cent*, about 90 *per cent* of the value of material used in each helicopter is procured from foreign suppliers.

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

Information Technology Audit of the IT systems in selected Public Sector Undertakings

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.

MINISTRY OF FINANCE

Health Services Insurance

Insurance industry in India registered substantial growth after enactment of Insurance Regulatory Development Authority Act in 1999. This industry today functions in a highly competitive environment. The health services insurance is provided by 15 private insurance companies and four public sector undertakings viz., National Insurance Company Limited, The New India Assurance Company Limited, Oriental Insurance Company Limited and United India Insurance Company Limited. A performance audit of health insurance services by PSUs was conducted for the three years from 2006-07 to 2008-09. The performance audit revealed that:

- Proportion of premium from health insurance doubled from less than 10 per cent in 2004-05 to around 20 per cent in 2008-09. However, market share declined from 64 per cent in 2006-07 to 57 per cent in 2008-09.
- Four PSU insurers suffered a loss of Rs. 417 crore from individual portfolio, whereas group policies had contributed a loss of Rs. 622.49 crore during the three year period from 2006-07 to 2008-09. Despite these huge losses, it was seen in 115 out of 159 cases reviewed in audit that group policies were renewed without appropriate loading in violation of the rules for renewal of such policies. Further,

the group policies with high incurred claim ratio included a corporate house that is itself in the business of providing health insurance.

- The PSU insurers did not attempt to reduce their losses by reducing the cost of medical services through standardization of rates and codes for various clinical procedures despite introduction of TPA Regulations nine years ago.
- The cashless settlement has been achieved to the extent of 55 per cent only and cases of delay in issue of ID cards, and claim settlement beyond 7 working days were noticed in respect of 72 per cent of the cases. There were wide variations in the amount of claims for similar clinical procedures. The PSU insurers failed to monitor the performance parameters resulting in deficiency in services of the third party administrators to the insured with consequent impact on customer satisfaction.

MINISTRY OF HEAVY INDUSTRIES AND PUBLIC ENTERPRISES

Bharat Heavy Electricals Limited

Procurement System

Bharat Heavy Electricals Limited (BHEL) is one of the largest engineering and manufacturing enterprises catering to the core sectors of Indian Economy viz. Power Generation & Transmission, Industry, Transportation, Telecommunication, Renewable Energy, etc. During the year 2008-09 the Company registered gross sales of Rs. 28,033 crore and material cost of around Rs. 15,600 crore. The performance audit of the procurement system of the Company. disclosed that there was scope for further improvement in the following areas:

- The cost of material purchased by the Company as a percentage of turnover showed an increasing trend from 45.69 per cent in 2006-07 to 55.66 per cent in 2008-09. The Management was yet to formulate a plan of action to arrest the rise in material cost. Rising material cost was, among other things, partly attributable to majority purchases by the Company through limited tenders without establishing a solid vendor base. Only eight per cent of procurement was done by the Company through open tendering during the last three years ended March 2009 and the balance was through limited/single tenders. In Bhopal, Haridwar, Hyderabad, PEM, Noida and Trichy Units there was only a single vendor registered for 538, 286, 16, 302 and 8 material groups respectively. Many of the vendors registered with CII and CEA were not registered with the BHEL units.
- The Product Material Directories of units were not being updated continuously, giving a false assurance of existence of optimum number of vendors.
- The Purchase policy and procedures were not revised since October 1998 despite significant global changes affecting the business.
- In the absence of standard procedure for cost estimation, the units justified the price offers by applying escalation over the last purchase prices. In Haridwar, Hyderabad and Trichy units, this exercise was being done after opening of price bids.

- The PEM unit awarded 17 works (Rs. 26.80 crore) on a firm and its allied/sister concerns banned by Hyderabad unit.
- No norms for purchase lead time had been fixed by units except Trichy unit where targets of 60 days to 120 days for conversion of purchase requisitions into purchase orders had been fixed. Audit observed that during three years ended 31 March 2009 in 54 *per cent* cases the Company awarded contracts after 75 days and upto 300 days and in 13 *per cent* cases the time taken was more than 300 days.
- As per policy, repeat orders, without calling for fresh tenders could be placed provided there is no downward price trend. However, in Haridwar unit in four products (covering selected six purchase orders valuing Rs. 139.06 crore) the unit did not place repeat orders resulting in an extra expenditure of Rs. 29.09 crore.

Audit acknowledges that the Management has appreciated the audit inputs and intends to use them for improvement of the procurement process.

MINISTRY OF PETROLEUM AND NATURAL GAS

Indian Oil Corporation Limited

Efficiency of Panipat and Mathura Refineries

Indian Oil Corporation Limited is India's largest commercial enterprise with a turnover of Rs. 2,85,337 crore and a net profit of Rs. 2,950 crore in 2008-09. The Company has eight refineries with a total capacity of 49.70 Million Metric Tonne Per Annum (MMTPA). A performance audit conducted to assess the efficiency of the Mathura and Panipat refineries (with refining capacities of 8 MMTPA and 12 MMTPA respectively) located in northern India, for the three year period from 2006-07 to 2008-09 disclosed that both the Refineries achieved more than 100 per cent of their respective achievable targets during the period reviewed (except Panipat Refinery during 2006-07 due to stabilisation problem). There was scope for further improvement in capacity utilisation of processing units and improving yield by enhancing the middle and light distillates, which are more profitable. The major audit observations were:

- The Company could not install Delayed Coker unit at Mathura Refinery and, thus, was deprived of the benefits of higher distillate yield and enhanced Gross Refinery Margin of about Rs. 800 crore per annum.
- The Mathura Refinery produced Propylene more than its demand and had to blend back 16,665 MT of propylene with LPG resulting in loss of Rs. 11.38 crore.
- The Company revamped Continuous Catalytic Reforming Unit at Panipat Refinery at an expenditure of Rs. 61.77 crore but did not utilise its enhanced capacity rendering the investment on its revamping infructuous.
- Vis Breaker Unit of Panipat Refinery set up at a cost of Rs. 38.34 crore did not achieve designed yield resulting is loss of Rs. 27.22 crore.
- A PX-PTA project at Panipat Refinery set up at a cost of Rs. 2,630.11 crore did not produce the designed yield leading to loss of Rs. 69.93 crore.

- An investment of Rs. 81.67 crore on revamping of Reside Fluidised Catalytic Unit proved to be unproductive as LPG yield increased only marginally from 19 per cent to 20 per cent against the envisaged LPG yield of 29 per cent.
- On environment front Audit found that the Company did not achieve ILP targets in terms of Sulphur recovery, production of Euro III compliant MS and HSD in all the three years except production of MS in 2007-08. The short recovery of sulphur also resulted in loss of Rs. 108.66 crore during the above three year period besides polluting the environment.

Some of the important recommendations made by Audit deserve attention of the Management for further improving its performance by (a) optimum utilisation of the installed capacities, (b) achieving the designed yield in both the Refineries and (c) increasing distillate yield in respect of Mathura Refinery by Installing Delayed Coker Unit by perusing the most feasible option.

Oil and Natural Gas Corporation Limited

Exploration in shallow water blocks

Oil and Natural Gas Corporation Limited (Company) has been carrying out activities relating to exploration and production of hydrocarbon since 1956. The Company has offshore shallow water blocks (water depth upto 400 metres) in five sedimentary basins.

Upto 1998, the Company was offered exploratory blocks on 'nomination basis' (nomination blocks). The policy for nomination blocks was also amended in March 2002. In 1999, the MOPNG implemented the New Exploration Licensing Policy (NELP) through the Directorate General of Hydrocarbons.

The Performance Audit covered performance of the Company during 2004-08 in 37 shallow water blocks comprising of 21 nomination blocks and 16 NELP blocks. Performance Audit revealed systemic and compliance deficiencies mainly relating to absence of norms for key activities, delays/failures in carrying out acquisition, processing and interpretation (API) of seismic data, delayed tendering, mismatch in planning of exploration activities including drilling of wells which resulted in unfruitful expenditure (Rs. 2,136.45 crore) and avoidable expenditure (Rs. 94.67 crore) besides entailing liability for payment of liquidated damages (Rs. 252.20 crore).

- In 7 of the 16 NELP blocks, the Company took 8 to 12 months in completion of Environment Impact Assessment (EIA) studies which had adverse impact on timely API of seismic data. In the absence of norms, the reasonableness of time taken in completion of EIA studies and API could not be ascertained in audit.
- The pace of completion of API was also very slow in a number of blocks with the result that exploration commitments in the nomination as well as the NELP blocks could not be completed in time. The slow pace coupled with the mismatch between rig deployment plan and availability/deployment of rigs affected fulfilling of the drilling commitments. This had cascading adverse impact as exploration blocks had to be surrendered after incurring substantial expenditure.
- There was no reserve accretion in any of the 16 NELP blocks as all the wells drilled were found to be dry. The Company had surrendered/proposed to surrender 10 of the 16 NELP blocks after incurring substantial expenditure of Rs. 1,461.36

crore over the period 2004-08 though the Company had bid for the blocks after analyzing their prospectivity.

- Some of the important recommendations made by Audit in the Report deserve attention of the Management towards (a) completion of exploration activities in a time bound manner to avoid surrender of blocks; (b) prescribing norms for EIA and determining average API cycle time to ensure their timely completion; (c) initiation of tendering process well in advance so that survey vessels could be hired and deployed at the beginning of the fair weather season and; (d) ensuring availability of suitable rigs while finalising the rig deployment plan.

MINISTRY OF SHIPPING

Hindustan Shipyard Limited and Cochin Shipyard Limited

Ship Repair Activity in Indian Dockyards

Hindustan Shipyard Limited (Hindustan Shipyard), Visakhapatnam was set up in 1941 and it established ship repair unit in 1971. Turnover from the ship repair activity was varying from Rs. 87.90 crore to Rs. 144.13 crore against the total turnover of the Company which was ranging between Rs. 225.30 crore and Rs. 395.81 crore during 2004-05 to 2008-09.

Cochin Shipyard Limited (Cochin Shipyard) incorporated in March 1972 commenced ship repair operations in 1981. The ship repair turnover of the Company was varying from Rs. 148.02 crore to Rs. 270.06 crore against the total turnover which ranged between Rs. 276.48 crore and Rs. 1256.21 crore during 2004-05 to 2008-09.

The performance audit of ship repair activity of these companies for the period 2004-05 to 2008-09 was conducted to assess efficiency and economy of their ship repairs operations and their ability to expand the ship repair business in domestic as well as international markets. The deficiencies noticed in ship repair activities in these companies were as below:

- The turnover of Indian ship repair industry during the years 2004-05 to 2008-09 ranged between Rs. 316.07 crore and Rs. 490.38 crore. Though Hindustan Shipyard and Cochin Shipyard being the leading shipyards in the country had major share ranging between 73.74 per cent and 91.36 per cent, there was no defined action plan to capture market potential.
- Out of Rs. 970.67 crore of ship repair expenditure by Shipping Corporation of India during 2004-05 to 2008-09, Rs. 849.20 crore, i.e., 87.49 per cent was spent for repairs in foreign yards.
- Repair business of Hindustan Shipyard and Cochin Shipyard from foreign ships was Rs. 44.25 crore (31 ships) and Rs. 60.23 crore (5 ships) respectively during this period.
- Hindustan Shipyard and Cochin Shipyard did not revamp or modernise the infrastructure in tune with market potential.
- Hindustan Shipyard received Rs. 8.27 crore from the GoI for modernisation of ship repair facility against which it could utilise only Rs. 1.19 crore even after lapse of 5 to 46 months.

- No benchmarks were fixed for key activities such as steel renewal, sand/grit blasting, painting.
- In case of Hindustan Shipyard 77 orders were reviewed of which the Company executed 62 orders with time overrun ranging from 1 to 319 days which resulted in loss of Rs. 10.91 crore to the Company. In Cochin Shipyard out of 177 orders 98 orders were completed with time overrun leading to a loss of Rs. 2.73 crore.
- Realisation of the dues did not take place within the agreed credit period. In case of Hindustan Shipyard there were delays ranging between 6 and 882 days and in case of Cochin Shipyard it was up to 350 days after allowing the agreed credit period.

MINISTRY OF TEXTILES

Jute Corporation of India Limited

Fulfillment of socio-economic objectives

Jute Corporation of India (company) was set up in 1971 with the main aim of providing Minimum Support Price (MSP) to the jute farmers and to serve as a stabilizing agency in the raw jute sector. The company procures jute from the farmers at MSP and supplies to the jute mills. The performance audit, covering a period of six years (2003-2009), was conducted to assess whether the company implemented the price support operations effectively to ensure remunerative prices to the jute farmers. Audit sample covered 26 Departmental Purchase Centres (DPC) out of 171 DPCs in six major jute growing states. A number of deficiencies mentioned below were noticed in the functioning of the company:

- The company procured only 0.99 per cent to 10.4 per cent of available jute in India during the six years (2003-09). Thus, the company could not play any significant role in price stabilization and in ensuring remunerative prices to the jute farmers.
- The analysis regarding total estimated production and stock of the raw jute is made by the Jute Advisory Board in advance. The company, however, did not formulate any business plan, based on this information.
- Out of 500 centres where jute trading takes place, the company operates in 171 centres and has appointed co-operative societies in 40 centres for carrying out MSP operation on its behalf. Thus, total coverage by the company is only 43 per cent of the jute centres. Geographical location of some of the centres is not convenient to farmers resulting in long distance travel and extra cost to the farmers and even distress sale in the local markets.
- Due to the lack of storage facilities, some centres stopped procurement on several occasions which forced the farmers to go in for sale to the middlemen at lower prices.
- The Company could not enhance its turnover and suffered losses in all years from 2004-05 to 2007-08 excepting the year 2004-05. The company continued to depend on subsides. GOI reimbursed Rs. 36.59 crore for overhead costs for 2007-08 and regularized grants of Rs. 147.06 crore released from 2003-04 to 2007-08.

The per quintal operational expenses of the company are Rs. 409 which are higher than the operational expenses of Rs. 367 of private traders.

Though the Company's present price support operations cannot be called effective, there is tremendous scope to rectify deficiencies in its functioning.