



Annual Report



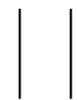
2004-05



भारी उद्योग एवं लोक उद्यम मंत्रालय
भारत सरकार

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Annual Report

2004-05



Ministry of Heavy Industries and Public Enterprises
Government of India







Ministry of Heavy Industries and Public Enterprises

C O N T E N T S

Department of Heavy Industry

Department of Public Enterprises

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Department of Heavy Industry

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1

The Ministry of Heavy Industries & Public Enterprises

Introduction

THE MINISTRY

1.1 The Ministry of Heavy Industries and Public Enterprises focuses on promoting the development and growth of capital goods and engineering industry in the country besides framing policy guidelines for Central Public Sector Enterprises (PSEs) and administratively dealing with 48 PSEs. The Ministry comprises of the Department of Heavy Industry and the Department of Public Enterprises.

DEPARTMENT OF HEAVY INDUSTRY (DHI)

1.2 The Department of Heavy Industry is concerned with the development of the heavy engineering industry, machine tool industry, heavy electrical industry, industrial machinery and auto-industry and administers 48 Central PSEs. The industries covered by this Department meet the requirements of equipment for basic industries such as steel, non-ferrous metals, fertilizers, refineries, petrochemicals, shipping, paper, cement, sugar, etc. The Department is

responsible for development of a wide range of intermediate engineering products like castings, forgings, diesel engines, industrial gears and gear boxes. They cater to the need of goods and services for almost all sectors of the economy, including power, rail and road transport etc. The Department also administers a national level Laboratory i.e. the Fluid Control Research Institute at Palakkad which caters to the needs of the flow industry for standardization of calibration.

1.3 The Department consults various Industry Associations and evolves plans for the growth of industry. The Department also assists industry through policy initiatives, resolution of problems relating to tariffs and trade, promotion of technological collaboration and up-gradation, and research & development, etc.

1.4 The Department of Heavy Industry is headed by a Secretary to the Government of India who is supported by an Economic Adviser and an

Integrated Finance Wing. The organizational chart of the Department is given at Annexure-I.

- 1.5 The Department closely interacts with PSEs under its administrative control to monitor their performance. The Department also serves as an interface between these enterprises and other agencies of the Government and helps establish long term linkages to improve their order book and ensure timely supplies to core sector customers.

PUBLIC SECTOR ENTERPRISES UNDER THE DEPARTMENT

- 1.6 The PSEs under the Department are engaged in manufacture of engineering/capital goods, consultancy and contracting activities. The total investment (Gross Block) in 48 Public Sector Enterprises under the Department was about Rs. 8590 crores as on 31st March, 2004 (Annexure-II). This computation of investment does not include the fourteen PSEs which have been closed or their operations discontinued. The enterprises under the Department produce a wide range of products ranging from machine tools, industrial machinery, boilers, gas/steam/hydro turbines, turbo generators, railway traction equipments, pressure vessels, AC locomotives, prime movers, electrical equipment and agricultural tractors, consumer products such as watches, paper, tyres and salt. The Department is also concerned with the affairs of Maruti Udyog Ltd., a joint sector company in the auto sector.
- 1.7 The Department undertakes and encourages restructuring of Public Sector Enterprises under its administrative control in line with the overall Public Sector Policy of the Government. The Department interacts with BIFR and other concerned agencies for formation of revival packages in respect of sick PSEs. As per the Public Sector policy outlined in the National Common Minimum Programme (NCMP),

generally profit making companies will not be privatized. Efforts will be made to modernize and restructure sick PSEs and chronically loss making companies will either be sold off or closed after all employees are paid their legitimate dues and compensation.

- 1.8 With a view to implement the mandate as per NCMP, a Board for Reconstruction of Public Sector Enterprises (BRPSE) has been established. BRPSE would address the entire gamut of issues pertaining to revival/restructuring of public sector enterprises. The Board will also advise the Government on measures to strengthen the PSEs in general and making them more autonomous and professional.
- 1.9 The Department provides financial support to the PSEs in consultation with the Ministry of Finance and Planning Commission for meeting their investment needs and providing funds to the sick/loss making PSEs for implementation of restructuring plans sanctioned by the Government/BIFR. The Department also provides financial support to the PSEs to extend benefits to the employees under the Voluntary Retirement Scheme approved by the Government for undertaking manpower rationalization in the PSEs. The total employee strength as on 31.3.2004 for PSEs under DHI was 1,00,104 (as per details at Annexure-III).

CITIZENS CHARTER

- 1.10 Public Sector Enterprises function under the Indian Companies Act, 1956 and the guidelines laid down by the Department of Public Enterprises. The Department of Heavy Industry is as such committed to the goal of effective and responsive administration. Following steps have been taken in this direction:
 - (i) In an effort to streamline the system of redressal of public grievances and staff

grievances, a Joint Secretary and a Director in this Department are functioning as Joint Secretary (Public Grievances) and Director (Staff Grievances) respectively.

- (ii) In response to the need for professional office management, a Joint Secretary in this Department has been designated as IT manager who is also responsible for introduction of software packages and systems upgradation to improve efficiency and quality of output.
- (iii) A Nodal Officer of the rank of Director has been designated in the Department for the redressal of grievances of Pensioners.
- (iv) For the purpose of settlement of grievances of the staff (disputes in Lok Adalat) a Nodal Officer of the rank of Director has been designated in the Department in respect of officers/staff members working in the Department.
- (v) The Annual Reports of the Department (both in English and Hindi) and other important information including initiatives and new policies are made available on the web-site of the Department. (www.dhi.nic.in)
- (vi) An officer of the rank of Director in the Department has been nominated as liaison officer for the work relating to redressal of grievances of SCs/STs in the Department and PSEs under its control.
- (vii) For redressal of complaints relating to sexual harassment of women, a committee headed by a woman officer of the rank of Under Secretary has been constituted in the Department.

DEPARTMENT OF PUBLIC ENTERPRISES (DPE)

In their 52nd Report, the Estimates Committee of 3rd Lok Sabha (1962-67) stressed the need for setting up a centralized coordinating unit, which could also make continuous appraisal of the performance of public enterprises. This led to the setting up of the Bureau of Public Enterprises (BPE) in 1965. As a result of the reorganization of the Ministries/Department of the Union Government in September 1985; BPE was made part of Ministry of Industry. In May 1990, BPE was made a full-fledged Department and is now known as the Department of Public Enterprises (DPE). Presently, it is a part of Ministry of Heavy Industries & Public Enterprises.

The Department of Public Enterprises acts as a nodal agency for all central Public Sector Enterprises (PSEs) and assists in policy formulation pertaining to the role of PSEs in the economy as also in laying down policy guidelines on performance improvement and evaluation, financial accounting, personnel management and in related areas for the PSEs. It also collects, evaluates and maintains information on several areas in respect of PSEs. DPE also provides an interface between the administrative Ministries and the PSEs.

2. MANDATE OF DPE

2.1 As per Allocation of Business Rules of the Govt., the following subjects have been allotted to the Department of Public Enterprises:-

- Bureau of Public Enterprises including Industrial Management Pool.
- Coordination of matters of general policy of non-financial nature affecting all public sector industrial and commercial undertakings.
- Matters relating to Memorandum of Understanding mechanism of improving the performance of public sector enterprises.
- Matters relating to Permanent Machinery of Arbitration for the Public Sector Enterprises.

- Matters relating to Counselling, Retraining and Redeployment of rationalized employees of CPSEs.
- A Board for Reconstruction of Public Sector Enterprises (BRPSE) has been set up under the administrative charge of the Department of Public Enterprises.

3. ROLE OF DPE

3.1 The Department of Public Enterprises acts as the nodal agency for all Central PSEs and assists in the formulation of policy pertaining to performance evaluation, autonomy and financial delegation, personnel management and related areas concerning CPSEs. DPE also collects, evaluates and maintains information on key areas in respect of CPSEs. In fulfilling its role, it coordinates with other Ministries, CPSEs and concerned organizations.

3.2 The important tasks of the Department are listed below:

- The work being done by Bureau of Public Enterprises including matters relating to the officers of industrial management pool transferred to Department of Public Enterprises.
- To bring out an Annual Public Enterprises Survey for submission to Parliament.
- Wage policy.
- Board structure, categorization, appointment of non-official Directors and training of executives of CPSEs.
- Review of Miniratna and Navratna CPSEs
- Matters relating to reservation of posts in CPSEs.
- Matters relating to International Centre for Promotion of Enterprises (ICPE), Slovenia.
- Issuance of Presidential directives and guidelines to CPSEs.
- Delegation of powers to Board of Directors of CPSEs.
- Signing of Memorandum of Understanding between the CPSEs and the administrative Ministries/Departments.

- Matters relating to Purchase Preference Policy.
- Permanent Machinery of Arbitration for resolving commercial disputes (except relating to taxation and railways) between CPSEs inter se as well as between CPSEs and Central Government Ministries/Departments.
- Matters relating to Voluntary Retirement Scheme (VRS)
- Matters relating to Counselling, Retraining and Redeployment of rationalized employees of CPSEs.
- Board for Restructuring of Public Sector Enterprises (BRPSE)

4. DIVISIONS OF DPE

- (i) The Financial Policy Division comprises the Public Enterprises Survey unit, the Policy Planning Unit, Wage Cell and Purchase Preference Cell.

1.1 The Management Policy Division comprises the Personnel Policy Unit, Navratna and Miniratna Unit, Training Unit and SC & ST Cell. Board for Restructuring of Public Sector Enterprises (BRPSE)

- (ii) The MOU Division comprises MOU Unit, Data Bank & Computer Cell.
- (iii) Administration & Coordination Division comprises the Administration, Library, Parliament, Coordination Wing and Hindi Cell.
- (iv) The Permanent Machinery of Arbitration (PMA).
- (v) Counseling, Retraining & Redeployment (CRR) Division
- (vi) BRPSE Division

4.1 The Department is headed by the Secretary and assisted by one Joint Secretary, two Directors and an establishment with an overall sanctioned strength of 121 personnel.

Organogram of DPE is at Annex-I.

2

An Overview of Performance of Industrial Sectors and PSEs under the Department of Heavy Industry

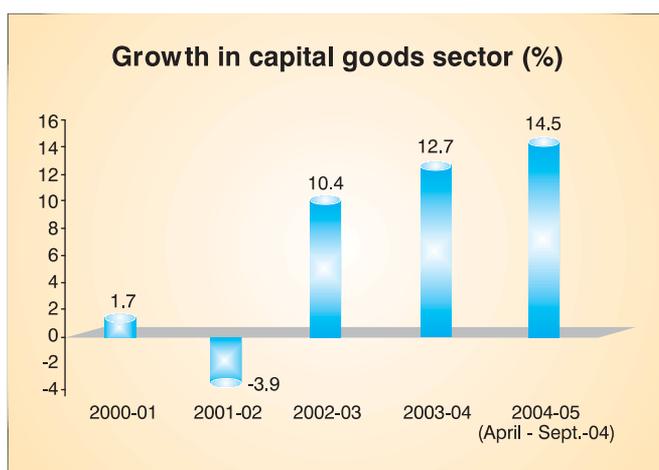
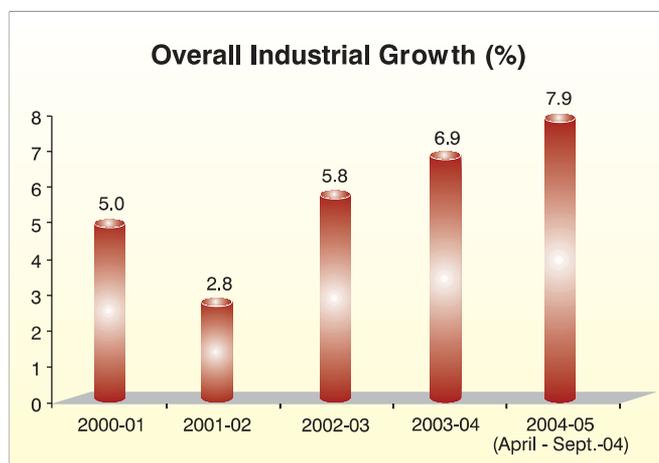
2.1 Performance of Industry

The healthy growth in the industrial sector achieved during 2003-04 has continued during the current year as well with overall industrial growth (measured in terms of the Index of Industrial Production) growing at a rate of 7.9 per cent during the April–September 2004-05 compared with 6.2 percent achieved during the same period last year.

Use based classification reveals that consumer goods sector clocked a growth of 8.8 per cent during April–September 2004-05 on top of 8.3 per cent growth for the same period last year. Consumer durable sub sector has shown an impressive growth of 15.2 per cent during April–September 2004-05 on top of 6.7 per cent increase in the same period last year. The consumer non-durable sub sector has also

retained its growth momentum. It posted a growth of 6.7 per cent in April–September 2004-05 compared with a growth of 8.9 per cent in the same period of the previous year. Basic and intermediate goods sectors posted a growth of 5.2 per cent and 7.7 per cent respectively during April–September 2004-05 compared with a growth of 4.3 per cent and 5 per cent in the same period of the previous year.

Capital goods sector, which has posted a robust growth of 13.6 per cent in 2003-04, has maintained its growth momentum during the current year as well. According to the Index of Industrial Production, capital goods sector posted a growth of 14.5 per cent during April–September 2004-05 on top of 10 per cent growth during the same period of the previous year.



2.2 The Department of Heavy Industry deals with the following 19 industrial sub-sectors :

- (i) Boilers
- (ii) Cement Machinery Industry
- (iii) Dairy Machinery Industry
- (iv) Electrical Furnace
- (v) Freight Containers
- (vi) Material Handling Equipment Industry
- (vii) Metallurgical Machinery
- (viii) Mining Machinery
- (ix) Machine Tool Industry
- (x) Oil Field Equipment
- (xi) Printing Machinery
- (xii) Pulp and Paper Machinery
- (xiii) Rubber Machinery Industry
- (xiv) Switchgear and Control Gear
- (xv) Shunting Locomotives
- (xvi) Sugar Machinery Industry
- (xvii) Turbines & Generator sets
- (xviii) Transformers

(xix) Textile Machinery Industry

2.3 The Growth trends during April–September 2004-05 as compared to April–September 2003-04 are given in the table below:

Sector-wise				
	Weight	2003-04 (Apr–Mar)	2003-04 (Apr–Sep)	2004-05 (Apr–Sep)
Overall	100.0	7.0	6.2	7.9
Mining & Quarrying	10.5	5.2	4.2	4.9
Manufacturing	79.3	7.4	6.7	8.2
Electricity	10.2	5.1	3.0	7.7
Use-Based Classification				
Overall	100.0	7.0	6.2	7.9
Basic Goods	35.6	5.4	4.3	5.2
Capital Goods	9.3	13.6	10.0	14.5
Intermediate Goods	26.5	6.4	5.0	7.7
Consumer Goods	28.7	7.1	8.3	8.8
(i) Durables	5.4	11.6	6.7	15.2
(ii) Non-durables	23.3	5.8	8.9	6.7

(Source : CSO)

2.4 Production and growth rates of some of the industries being dealt within the Department of Heavy Industry for the period April–September 2004-05 as compared to April–September 2003-04 are given below:

Industry	Unit	Production Apr – Sep 2003-04	Production Apr – Sep 2004-05	Growth Rate (%)
Industrial Machinery	Rs. Lakhs	89322.48	116464.76	30.39
Machine tools	Rs. Lakhs	107828.63	116479.53	8.02
Boilers	Rs. Lakhs	80811.23	77222.33	-4.44
Turbines(Steam/Hydro)	Rs. Lakhs	20640.60	17390.60	-15.75
Electric Generators	Rs. Lakhs	44388.70	59035.56	33.0
Power Distribution Transformers	Million KVA	30.07	22.12	-26.46
Telecommunication Cables	Million Mtr.	10448.51	9935.52	-4.91
Commercial Vehicles	Nos.	116523	156814	34.58
Passenger Cars	Nos.	369136	499416	27.17

(Source : Department of Industrial Policy and Promotion)

2.5 PSEs under the Department of Heavy Industry

2.5.1 The PSEs under the Department are engaged in manufacturing, consultancy and contracting activities. Out of 48 PSEs, 14 PSEs have either been closed or are not in operation thus leaving 34 PSEs. During the year 2003-04, 9 PSEs have made profits and remaining 25 have made losses. The aggregate performance in 2003-04 and 2004-05 (Anticipated) has been as under:

(Rs. crore)

	2003-04	2004-05 (Anticipated)
Production	12306	13612
Profit(+)/Loss(-)	(-)813	(-)764

(PSE-wise details are available at Annexure. IV & V respectively.)

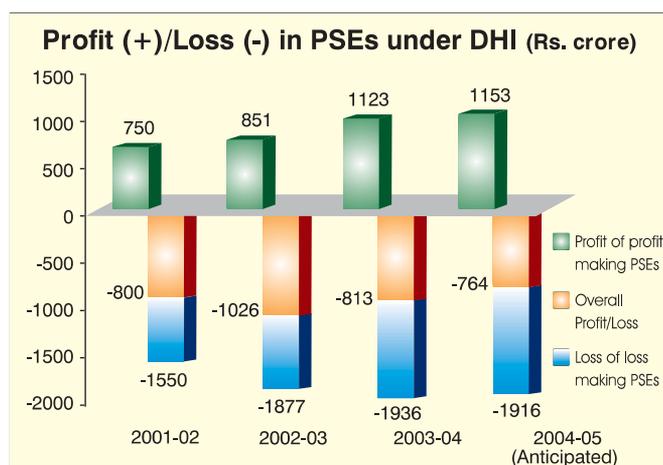
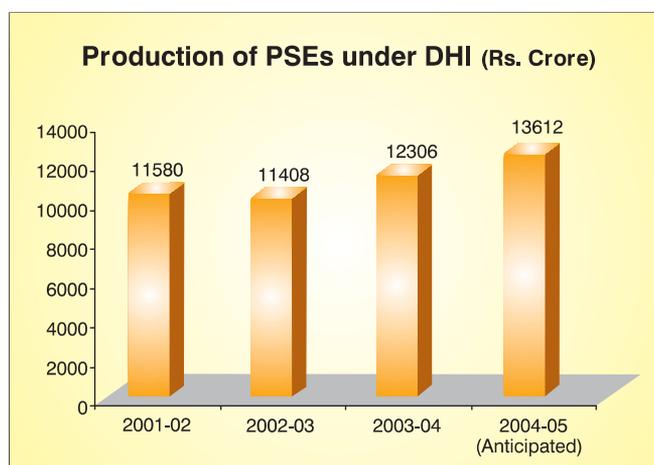
2.5.2 The loss is attributed to the shortfall in production in some major enterprises owing to poor order book, shortage of working capital, surplus manpower, obsolete plant and machinery, besides increase in the cost of inputs etc.

2.5.3 Several of these loss making PSEs have problems of large work force and huge overheads far above the industry norms. In this context salary/wage bill and social overheads as percentage of turnover is given at Annexure-VI.

2.5.4 The order book in majority of the PSEs has been gradually reducing except in case of BHEL where order book has substantially improved from a level of Rs. 10,000 - Rs. 12,000 crore to Rs. 30,000 crore. Details of order book in individual PSEs is given at Annexure-VII.

2.5.5 There are only a few companies which have been able to export their products. Major exporting PSEs are BHEL and HMT. Details of export performance of PSEs under DHI are given at Annexure-VIII.

2.5.6 Government's investment in terms of equity in these PSEs is Rs. 3861 crore. Many of the PSEs have been making losses for the last few years eroding their net worth substantially. Details of Government equity, net worth and accumulated loss/profit of these PSEs are given at Annexure-IX.



2.6 Policy regarding Central Public Sector as per National Common Minimum Programme (NCMP)

The salient points relating to the Public Sector policy under NCMP are:

- Successful profit making PSEs operating in competitive environment would be given full managerial and commercial autonomy.
- Generally, profit making companies will not be privatized.
- All privatization will be considered on a transparent and consultative case to case basis.
- While every effort will be made to modernize and restructure sick PSEs and revive sick industry, chronically loss making companies will either be

sold off or closed after all workers have got their legitimate dues and compensation.

- Care will be taken to ensure that the process of privatization helps increase competition.

2.7 PSEs referred to BIFR

2.7.1 19 out of 48 PSEs, stand referred to BIFR. Present status of these PSEs before BIFR is as under -

(i)	Cases where BIFR had sanctioned scheme for revival.	5 i) Bharat Pumps & Compressors Ltd. ii) Burn Standard Co. Ltd. iii) Braithwaite & Co. Ltd. iv) Instrumentation Ltd. v) National Instruments Ltd.*
(ii)	Cases where BIFR has recommended winding up.	6 i) Bharat Ophthalmic Glass Ltd. ii) Hindustan Photo Films Ltd. iii) Nagaland Pulp & Paper Mills Ltd. iv) Triveni Structurals Ltd. v) Heavy Engineering Corpn. Ltd. vi) Richardson & Cruddas Ltd.
(iii)	Final recommendations of BIFR awaited.	8 i) Andrew Yule & Co. Ltd. ii) Bharat Wagon Engg. Co. Ltd. iii) Cement Corpn. of India Ltd. iv) Hindustan Salts Ltd. v) Hindustan Cable Ltd. vi) Nepa Ltd. vii) Praga Tools Ltd. viii) Tyre Corpn. of India Ltd.

*operations since discontinued

2.8 Restructuring of PSEs in the past

2.8.1 Some of the restructuring efforts earlier taken up include:

- Conversion of Belting Division of Andrew Yule & Co. Ltd. (AYCL) in the year 1999 into a Joint Venture company (Phoenix Yule & Co.) with M/s Phoenix of Germany as the partner holding 74% of the equity with balance of 26% with AYCL.
- Conversion of Lagan Jute Machinery Co. Ltd. (LJMC), a subsidiary of BBUNL

into a JV and transfer of management of the company to JV partner in July, 2000.

- Conversion of Jessop & Co. Ltd. (Jessop), a subsidiary of BBUNL into a JV and transfer of management of the company to JV partner in August, 2003.

2.8.2 While the Government have been supporting viable and credible revival plans, some PSEs were considered unviable by BIFR/Expert Agency and following PSEs have been closed :

- (i) Bharat Process Mechanical Engineers Ltd. (BPME)
- (ii) Bharat Brakes & Valves Limited (BBVL)
- (iii) Cycle Corporation of India (CCIL)
- (iv) National Bicycle Corpn. of India Ltd. (NBCIL)
- (v) Mining and Allied Machinery Corpn. Ltd. (MAMC)
- (vi) Rehabilitation Industries Corp. (RIC)
- (vii) RBL Limited (RBL)
- (viii) Tannery & Footwear Corpn. Ltd. (TAFCO)
- (ix) Weighbird India Ltd. (WIL)

2.8.3 Besides the nine PSEs mentioned above, four unviable units of HMT Ltd. (Watch Case Division, Lamp Division, Central Metal Forming Institute all at Hyderabad and Miniature Battery Unit in Guwahati), loss making refractory units and Jellingham Yard of Burn Standard Co.Ltd. (BSCL), Tangra Unit of Tyre Corporation of India Ltd.(TCIL) have been closed consequent upon the permission granted by the Appropriate Authority.

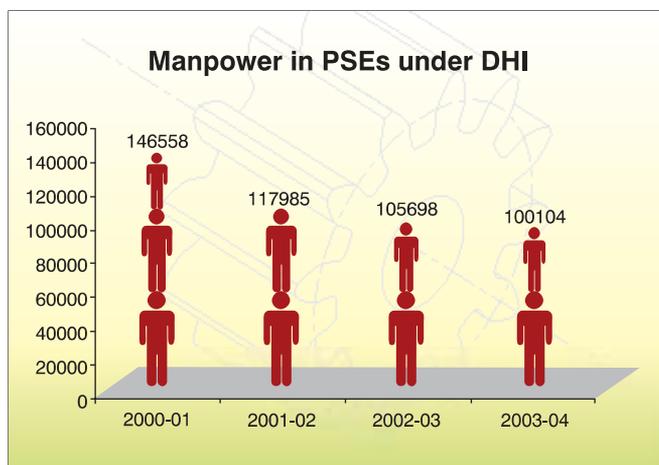
2.8.4 There are no operations in five PSEs namely National Industrial Development Corporation Ltd. (NIDC), Bharat Leather

Corporation Ltd. (BLC) and Nagaland Pulp and Paper Mills Ltd. (NPPC), National Instruments Ltd. and Bharat Ophthalmic Glass Ltd.

2.9 Manpower Rationalisation

2.9.1 Voluntary Retirement Scheme (VRS) has been introduced in a number of PSEs of this Department to shed surplus manpower without causing undue hardship to the workers. About 81,000 employees have opted for VRS during the last twelve years period 1992-93 to 2003-04 involving an expenditure of about Rs. 2400 crores.

2.9.2 The Department has also been encouraging issue of bonds by PSEs by the FIs/Banks/ Institutions/Public against Govt. guarantee for meeting the expenditure on VRS for which interest subsidy is also being provided by Government.



2.10 Autonomy to PSEs/Navratnas and Miniratnas

2.10.1 BHEL is one of the Navratna CPSEs. The Board of the Company has been strengthened by induction of qualified professionals. Greater freedom has been given in respect of capital expenditure, formation of strategic alliances and formulation of HRD policies.

2.10.2 Besides, BHEL, three PSEs namely REIL, HNL and HMT(I) have been categorized as Miniratnas.



168.1 MW Kelanitissa Power Plant (Sri Lanka), equipped with BHEL-supplied 123 MW Gas Turbine.

2.11 Memorandum of Understanding (MOU)

2.11.1 With a view to giving greater autonomy to the public sector enterprises and make them accountable for achievement of their objectives, MOU has been signed by the following 7 PSEs, with Government of India for the year 2004-2005.

- (i) Bharat Heavy Electricals Limited. (BHEL)
- (ii) Engineering Projects (India) Limited. (EPI)
- (iii) Hindustan Paper Corporation Limited. (HPC)
- (iv) Hindustan Newsprint Limited (Subs. of HPC)
- (v) Rajasthan Electronics & Instruments Ltd., Jaipur. (Subs. of ILK)
- (vi) Scooters India Ltd. (SIL)
- (vii) HMT Ltd. (HMT)

2.12 North Eastern Region

2.12.1 Out of the 48 Public Sector Enterprises under the administrative control of the Department of Heavy Industry, the following PSEs/Units are situated in the North Eastern Region :-

- (i) Hindustan Paper Corporation Ltd. (HPC) (Nagaon & Cachar Paper Mills), Assam.

- (ii) Nagaland Pulp & Paper Company Ltd. (NPPC) Nagaland.
- (iii) Cement Corporation of India Ltd. (CCI) Bokajan Unit, Assam.
- (iv) Andrew Yule & Company Ltd. (AYCL) Tea Gardens, Assam.

2.12.2 These PSEs/Units are engaged in the manufacture of Paper, Cement and Tea. As per the policy of the Government, 10% of the budget of this Department is being allocated for the development of North Eastern Region. Some of the major schemes undertaken during the last three years include modernization of paper units of Hindustan Paper Corporation Ltd. (HPC), D.G.Set for power generation and

installation of overhead crane at Bokajan Unit of Cement Corporation of India Ltd. (CCI) and rejuvenation of tea plantation of Andrew Yule & Company Ltd. (AYCL) in Assam. The Government budgetary support provided for capital investments made in the North East Region during the last three years i.e. 2001-02, 2002-03 and 2003-04 have been Rs. 7.12 crore, Rs. 4.34 crore and Rs. 5.84 crore respectively.

2.13 Audit observations of Comptroller & Auditor General of India (CAG)

As per the requirement stipulated by the CAG, summary of important audit observations of CAG of India on the working of the Department of Heavy Industry are given in Annexure-X.

3

Highlights

3.1 With reference to the policy stipulation contained in the National Common Minimum Programme (NCMP) in respect of Public Sector, a review for revival/restructuring, strengthening etc. of the PSEs has been undertaken. Based on this review, restructuring/revival proposals are being placed before the Board for Reconstruction of Public Sector Enterprises (BRPSE).

3.2 As a first step to revitalize the public sector enterprises under the Department of Heavy Industry, Government sanctioned an amount of Rs. 517 crore required for clearing the arrears of statutory dues and salary/wages in 24 ailing PSEs.

3.3 Fluid Control Research Institute (FCRI) signed an MOU with Bhaba Atomic Research Centre (BARC) and Board of Research in Nuclear Science (BRNS) for sponsorship of a project proposal amounting to Rs. 74.3 lakhs for design & development of High Pressure, High

Temperature Multiphase flow meter for transient measurement.

3.4 Automotive Research Association of India (ARAI) entered into an MOU with Vellore Institute of Technology, Vellore (VIT), which is deemed University, for jointly offering 2 year of Master of Technology (M.Tech.) programme in Automotive Technology.

3.5 Major highlights relating to Bharat Heavy Electricals Ltd. (BHEL) are as under :

- (i) Secured a contract valued at Rs. 559 crore from Maharashtra State Electricity Board for setting up one unit of 250 MW at New Parli Thermal Power Station Extension in Maharashtra.
- (ii) Secured an order valued at over Rs. 197 crore from Gujarat Electricity Board to set up a 75 MW lignite based power project.
- (iii) Secured an order valued at Rs. 20 crores for a Compressor and Drive Turbine

- package for Panipat Refinery Expansion Project of the Indian Oil Corporation Ltd. (IOCL).
- (iv) Bagged an order valued at Rs. 333 crore for manufacture, supply and erection of a highly advanced Gas Turbine for a power Project of Gujarat State Electricity Corporation Limited at Dhuvaran in Anand District.
 - (v) Bagged an order valued at Rs. 61 crore from Power Department, Government of Tripura for setting up of a 21 MW Gas-based power plant at Rokhia near Agartala in Tripura.
 - (vi) Achieved a new milestone in overseas markets with the export of 150 MW gas turbine generator for the upcoming 600 MW Gas Turbine based power plant in Libya.
 - (vii) Achieved from commercialization of products and systems developed through in-house R&D, a turnover of Rs. 575 crore, which is nearly 7% of the Company's total turnover for 2003-04.
 - (viii) Installed in association with ISRO a new facility at its Bangalore plant for assembly and testing of Space Quality Batteries to meet the ISRO's satellite programmes.
 - (ix) Secured a contract valued at Rs. 647.10 crore from Maharashtra State Electricity Board for setting up of 250 MW Unit at Paras Thermal Power Project.
 - (x) Secured a contract valued at Rs. 1701 crore from Damodar Valley Corporation for setting up two units of 250 MW each at Mejia Thermal Power Station in West Bengal on turnkey basis.
 - (xi) Bagged an order valued at Rs. 70 crore from Punjab State Electricity Board for setting up a Hydro Electric Project in Mukerian, Punjab.
 - (xii) Bagged an export order for a Gas compressor Package valued at Rs. 80 crore, from the Sultanate of Oman.
 - (xiii) Signed a Memorandum of Understanding (MOU) with Oil India Ltd. (OIL) for refurbishment and upgradation of their land rigs. This MOU is valid for 3 years which is likely to bring a business of Rs. 100 crore to BHEL.
 - (xiv) Commissioned 105 KW Solar Power Plant in association with West Bengal Renewable Energy Development agency at Mousuni island which may facilitate social & economic transformation in the lives of islanders.
 - (xv) Bagged a contract valued at Rs. 410 crore from National Thermal Power Corporation (NTPC) for setting up 800 MW Koldam hydro electric project in Himachal Pradesh.
 - (xvi) Won a contract valued at Rs. 15 crore from West Bengal Renewable Energy Development Agency for setting up five stand alone solar Power Plants in islands of Sunderbans, West Bengal.
 - (xvii) Bagged five out of a total of 18 Vishwakarma Rashtriya Puraskars' for their innovations which resulted in savings to the company.
 - (xviii) Won a major contract valued at Rs. 1,774 crore from Jindal Power Ltd. for a 1000 MW thermal power project to be implemented in two phases consisting of two units of 250 MW each in Raigarh District of Chhattisgarh.



Minister of State (Incharge) Heavy Industries & Public Enterprises Sh. Sontosh Mohan Dev handing over a cheque to the Hon'ble Prime Minister as BHEL's contribution to the PM's relief fund in aid of Tsunami victims.

- (xix) Won a contract valued at over Rs. 190 crore from Reliance Industries Ltd. for supply of three Gas Turbine Generator sets for their Hazira Petrochemical project and Jamnagar Refinery both in the State of Gujarat.
- (xx) Won an award, instituted jointly by Construction World and the National Institute of Construction Management and Research (NICMAR), ranking the company as the 'largest and most profitable construction company' among public and private sector enterprises in the country.
- (xxi) Commissioned its ninth Solar Power Plant of 100 KW at Kalpeni island in Lakshwadweep, as a part of the largest island electrification project utilizing solar energy in the Asia Pacific region.
- (xxii) Bagged a prestigious CII – Exim Commendation for business excellence achieved by four units of the company located at Hardwar, Trichy, Bhopal and Hyderabad.
- (xxiii) Won turnkey contract being funded by the Japan Bank for International Cooperation (JBIC), valued at

Rs. 1198 crore from West Bengal Power Development Corporation Limited for setting up two units of 210 MW each at Bakreswar Thermal Power Station (TPS) in West Bengal.

3.6 Engineering Projects (India) Ltd. (EPI) received Project Commissioning Award and Certificate from Chief Minister of Gujarat for excellent performance for successful completion of Bachau Anjar Water Pipe Line ahead of schedule. During the year, the company secured the following major orders:

- (i) A project valued at Rs. 103.93 crore from M/s Singareni Collieries Company Ltd, Andhra Pradesh for Blast Hole Drilling, Blasting, Excavation works at Gouthamkhani Open Cast Project.
- (ii) A project valued at Rs. 78.83 crore from M/s Gujarat Water Supply and Sewerage Board, Gujarat for distribution Network for Amreli & Bhavnagar District Water Supply Scheme.
- (iii) A project valued at Rs. 96 crore from Uranium Corporation of India for filtration, precipitation, and drawing system for Uranium Processing Plant.
- (iv) Order valued at Rs. 40.25 crore from HAL, Bangalore for construction of a Centre of Excellence in Machining.
- (v) Government of Guyana confirmed retaining EPI for Project Management Consultancy service for the proposed Stadium at GeorgeTown for Cricket World Cup 2007. The value of the Project is around US\$ 3.90 million.
- (vi) A project valued at Rs. 188.90 crore from Karnataka Housing Board, Bangalore, for construction and commissioning of all the



Transport-oriented multi-utility Tractor (Trantor) by HMT.

works for the housing scheme at Suryanagar, Bangalore.

3.7 Major highlights in respect of HMT Ltd. are as follows:

- (i) Entered into a technology collaboration agreement with TRANTOR Vehicles Limited, a design and development Company in Lancashire, UK by which HMT will have exclusive worldwide rights to manufacture and sell TRANTOR's transport-oriented multi-utility Tractors.
- (ii) Participated in the India's most prestigious Machine Tool Exhibition-IMTEX 2004 from 29.01.2004 to 03.02.2004 at Mumbai.
- (iii) First prototype Multi-Utility Vehicle (MUV) was developed by R&D team of Engineers of HMT. MUV is equipped with 1995 cc Direct Injection Diesel Engine having four forward and one reverse synchromesh gears.
- (iv) HMT Vajra, Earth Moving Machinery,

developed on 65 HP Tractor was introduced to the market to meet the emerging demands of infrastructure sector viz. Road Construction, Dam Construction, etc.

- (v) HMT (Watches) Ltd. bagged the biggest ever order valued at Rs. 3.25 crore from Steel Authority of India for supply of 76,000 nos. of ladies and gents watches.

3.8 Instrumentation Ltd. (ILK), Kota commissioned the first indigenous "Tar Injection System" an alternate fuel in the blast furnace at Steel Authority of India Limited - Bhilai Steel Plant, resulting in conservation of energy.

3.9 Scooters India Ltd. (SIL) was conferred "Greentech Environment Excellence Silver Award 2001-2002".

3.10 Rajasthan Electronics & Instruments Ltd. (REIL);

- (i) Completed deployment of 1000 PC-based milk collection station in the Punjab in a record period of 3 months at a cost of Rs. 12 crore.
- (ii) Successfully executed an export order for Photo Voltaic Cells valued at 1,78,000 Euro (Rs.1 crore approx.) to Germany at a short notice.
- (iii) Received the prestigious DSIR National Award 2004 in recognition of the R&D efforts in development of Data Processor based Electronic Milk Tester (DP-EMT), Society Accounts Management System (SAMS) and Raw Milk Reception Dock (RMRD) in Electronic/Opto Electronic Sector.

4

Public Sector Enterprises administered by the Department of Heavy Industry

4.1 **ANDREW YULE & CO. LTD. (AYCL)**

The company is engaged in manufacture, sales and servicing of various industrial products like industrial fans, tea machinery, air pollution control equipment, electrical equipments including switchgears, circuit breakers, etc. Six tea companies consisting of 12 tea gardens in West Bengal and Assam, engaged in cultivation, manufacture and processing of tea, became a part of the company in 1986. Transformers and Switchgears Ltd., Madras and Brentford Electric (India) Ltd., Calcutta were also nationalized and vested in Andrew Yule & Company Ltd. The company is sick and has been referred to BIFR. The Andrew Yule Group includes a subsidiary, M/s Hooghly Printing Company Ltd, and two major associate companies namely Dishergarh Power Supply Company Ltd (since renamed as DPSC Ltd) and Tide Water Oil Company Ltd. The company's Belting

Division has been converted into a joint-venture company from 1.2.1999 with M/s Phoenix, AG Germany holding 74% of the equity and AYCL holding 26% of the equity in the new company. The company is likely to end the year 2004-05 with a production of Rs. 109.55 crore. A comprehensive restructuring of the company has been approved by the Government with a total package of approx. Rs. 170 crore. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).

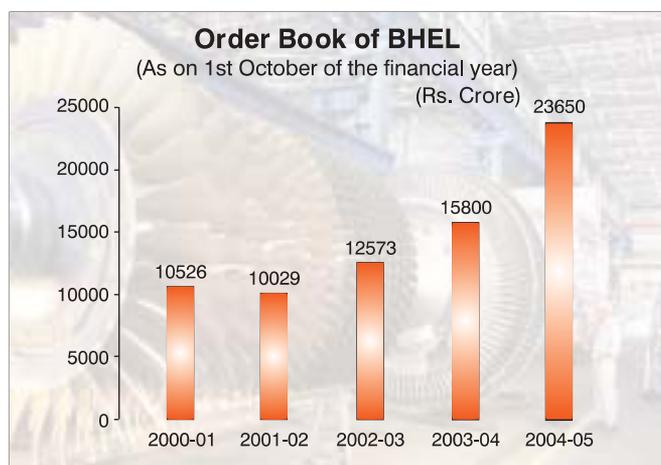
4.2 **HOOGLY PRINTING COMPANY LTD.**

The company was established in the year 1922 for catering to the printing and stationery requirement of the companies under Andrew Yule Group. It is a wholly owned subsidiary of

Andrew Yule & Co. Ltd. The production of the company in 2004-05 is expected to be Rs. 10.00 crore

4.3 BHARAT HEAVY ELECTRICALS LTD.

The company was established for specially catering to the power generation & Transmission equipment needs of the country. BHEL today is a major single point supplier of all systems and equipment required in Power Sector. It has 14 manufacturing Plants, 8 service centres and 4 Power Sector regional centres besides project sites and regional offices spread all over India and abroad. The company has been identified as a 'Navratna' PSE. BHEL's performance in 2003-04 against MOU targets qualified it for placement in 'Excellent' category.

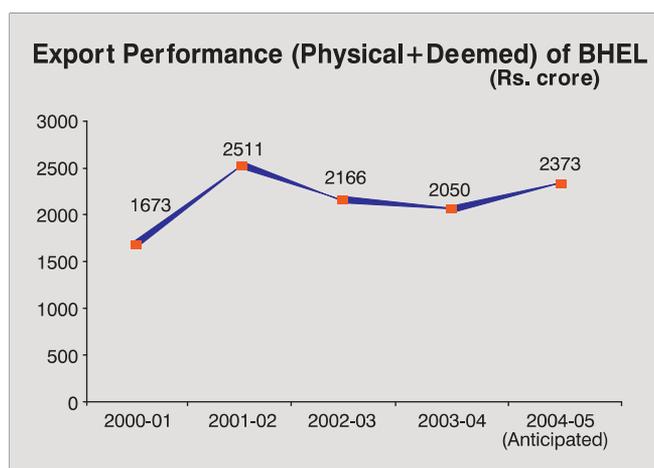


The company has taken several steps to enter into new business areas where its existing infrastructure, skills and capabilities could be optimally utilised. Some such new areas include Waste Heat Recovery Boilers, Advanced Class Gas turbines, Ceralin Insulators, Turret Castings, Water management, material handling O&M Services, Simulators and equipment & services for defence.

The company has formed two Joint Ventures, one with M/s Siemens of

Germany and the other with M/s General Electric, USA in the area of Servicing/renovation of Thermal Plants and Servicing of Gas turbines respectively.

The company is likely to end the year 2004-05 with a production of Rs. 9450.00 crore.



4.4 BHARAT BHARI UDYOG NIGAM LTD.

Bharat Bhari Udyog Nigam Ltd. (BBUNL) was incorporated as a holding company in 1986, with the primary aim of bringing about technical, financial and managerial effectiveness through inter-unit correlation and better coordination with external agencies. It has the following subsidiary companies :

- (i) Burn Standard Company Ltd.
Subsidiaries :
 - (a) Bharat Brakes & Valves Ltd. (BBVL) (since closed).
 - (b) RBL Ltd. (RBL) (since closed)
- (ii) Bharat Wagon & Engineering Company Ltd.
- (iii) Braithwaite & Company Ltd.
- (iv) Bharat Process & Mechanical Engineers Ltd (since closed)
Subsidiary :
 - (i) Weighbird (India) Ltd. (WIL) (Since closed)

(v) Braithwaite, Burn & Jessop Construction Co. Ltd.

(vi) Jessop & Company Ltd. (since disinvested in Aug. 2003)

The aggregate production of all the operating subsidiaries of the holding company is likely to be Rs. 415.41 crore in 2004-05.

4.5 BURN STANDARD COMPANY LTD.

Consequent upon the nationalization of the erstwhile Burn & Company Ltd. and the Indian Standard Wagon Company Ltd., Burn Standard Company Ltd. (BSCL) was incorporated in 1976. The company has two large engineering units at Howrah and Burnpur in West Bengal besides eight refractory and ceramic units located in Bihar, West Bengal, Tamilnadu and Madhya Pradesh. The major products being manufactured by BSCL include wagons, structurals, points and crossings, bogies, ash handling plant, coal handling plant etc. The company is sick and is under reference to BIFR. A revival plan was sanctioned by BIFR for the company. 7 loss making refractory units and Jellinghum Yard of the company have been closed following the permission granted by the competent Authority.

The production of the company during the year 2004-05 is anticipated to be Rs. 210.07 crore. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).

4.6 BRAITHWAITE & COMPANY LIMITED

Consequent upon nationalization, the company was taken over by Govt. in 1976. The company has three manufacturing units viz., (i) Clive Works, (ii) Victoria Works and (iii) Angus Works, which are engaged

primarily in the manufacture of Railway Wagons, steel structurals, and general and special purpose cranes including Container Handling Cranes, Rail-Mounted Diesel Loco Break down Cranes, Jute Carding Machines and Roll Feeders for the Jute industry, etc. The company is sick and referred to BIFR. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP). The production of the company during the year 2004-05 is anticipated to be Rs. 115.91 crore.

4.7 BHARAT WAGON AND ENGINEERING COMPANY LTD.

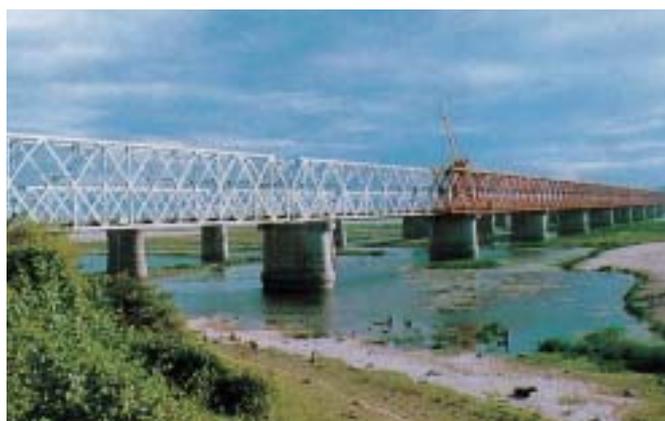
Bharat Wagon & Engineering Company Ltd. (BWEL) was formed after nationalization of Britannia, Mokameh, Bihar and Arthur Butler, Muzaffarpur, Bihar in 1979. The main products of the company are Railway Wagons, screw pile bridges, steel fabrications, Grey Iron Castings etc. The company has been referred to BIFR as it has become sick. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP). The production of the company during 2004-05 is anticipated to be Rs. 51.43 crore.

4.8 BRAITHWAITE BURN & JESSOP CONSTRUCTION CO. LTD.

Braithwaite Burn & Jessop Construction Co. Ltd. (BBJ) was constituted by Braithwaite, Burn and Jessop in 1935 for erection of the Howrah Bridge. BBJ turned into a PSE in 1987 when it became a subsidiary of Bharat Bhari Udyog Nigam Ltd., (BBUNL).

The company is engaged in construction of steel bridges, marine structures and jetties etc. BBJ has acquired the modern

technology of construction of cable stayed long span road bridges. The company has diversified into marine related activity. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP). The turnover of the company in 2004-05 is anticipated to be Rs. 38.00 crore.



Krishna Bridge at Vijayawada, Andhra Pradesh by BBJ.

4.9 BHARAT YANTRA NIGAM LTD.

Bharat Yantra Nigam Ltd. (BYNL), was incorporated as a holding company in 1986, with the main objective to integrate, monitor and coordinate the activities of the following subsidiary companies with a view to secure optimum utilization of resources and to provide package and turnkey services to various core sectors.

1. Bharat Heavy Plate & Vessels Ltd., Visakhapatnam.
2. Bharat Pumps & Compressors Ltd., Naini, Allahabad.
3. Bridge & Roof Company (India) Ltd., Kolkata
4. Richardson & Cruddas (1972) Ltd., Mumbai.
5. Tungabhadra Steel Products Ltd., Hospet, Karnataka.

6. Triveni Structural Ltd., Naini, Allahabad.

The total production of all the subsidiary companies during 2004-05 is anticipated to be Rs. 637.00 crore.

4.10 BHARAT HEAVY PLATES AND VESSELS LTD.

Bharat Heavy Plates & Vessels Ltd. (BHPV) was set up in the year 1966 for catering to the requirement of equipment for core Sectors such as Fertilizers, Oil Refineries, Petrochemicals, etc.

The company has three product divisions namely Process Plant Division, Cryogenics and Boiler Division. For effective utilisation of the existing facilities, the company implemented a number of diversification schemes such as manufacture of Air & Gas Separation Plants, design and manufacture of Industrial Boilers, Systems packages for Process Industries etc. with the technical back-up from world renowned companies. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP). The production of the company for the year 2004-05 is anticipated to be Rs. 87.00 crore.



Refrigerated LPG Terminal by BHPV for Indian Oil Co. Ltd. at Kandla.

4.11 BHARAT PUMPS & COMPRESSORS LTD.

Bharat Pumps & Compressors Ltd. (BPCL) was incorporated in 1970 at Naini, Allahabad. The company is catering to the needs of sectors like oil, fertilizer, chemicals etc. for various types of pumps & compressors. The company became sick and was referred to BIFR. The company's revival plan sanctioned by the BIFR has not been successful. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP). The company is likely to end the year 2004-05 with a production of Rs. 62.00 crore.

4.12 BRIDGE & ROOF COMPANY (INDIA) LTD.

Bridge & Roof Company (India) Ltd. (B&R) was initially a subsidiary of Balmer Lawrie & Co. Ltd. Subsequently, through investment of additional equity capital of Rs. 1.74 crore by Government of India in 1978, B&R became a Govt. company. The administrative control of this company was transferred to this Department from Ministry of Petroleum in June, 1986. The company's operations cover fabrication of medium and heavy structures, civil engineering works in respect of buildings, concrete bridges, project civil work, cooling towers, mechanical erection of complete plants for refineries, fertilizers, chemicals, steel, aluminium, etc. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP). The turnover of the company during the year 2004-05 is anticipated to be Rs. 455.00 crore.



Cross Country Pipeline for Mangalore Refinery by B&R.

4.13 RICHARDSON & CRUDDAS (1972) LTD.

Richardson & Cruddas (1972) Ltd. (R&C) was taken over from private sector in 1973. It has four units – two in Mumbai and one each in Chennai and Nagpur. The company became a subsidiary of BYNL in 1987.

The product profile of the company covers steel structures, transmission line towers, industrial machinery, chemical machinery, refrigeration equipment etc. The company is sick and referred to BIFR. The revival plan sanctioned by BIFR in 1995 has failed. In July, 2003, the BIFR passed the orders for winding up of R&C. The company's production during the year 2004-05 is anticipated to be Rs. 21.56 crore. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).



Onshore rig for ONGC by R&C.

4.14 TRIVENI STRUCTURALS LTD.

Triveni Structurals Ltd. (TSL) was incorporated in 1965. The company is primarily engaged in the manufacture of heavy steel structural products, such as tall towers and mast for power transmission, communication and T.V. broad-casting, hydromechanical equipment, pressure vessels etc. The company became a subsidiary of BYNL in April, 1987. The

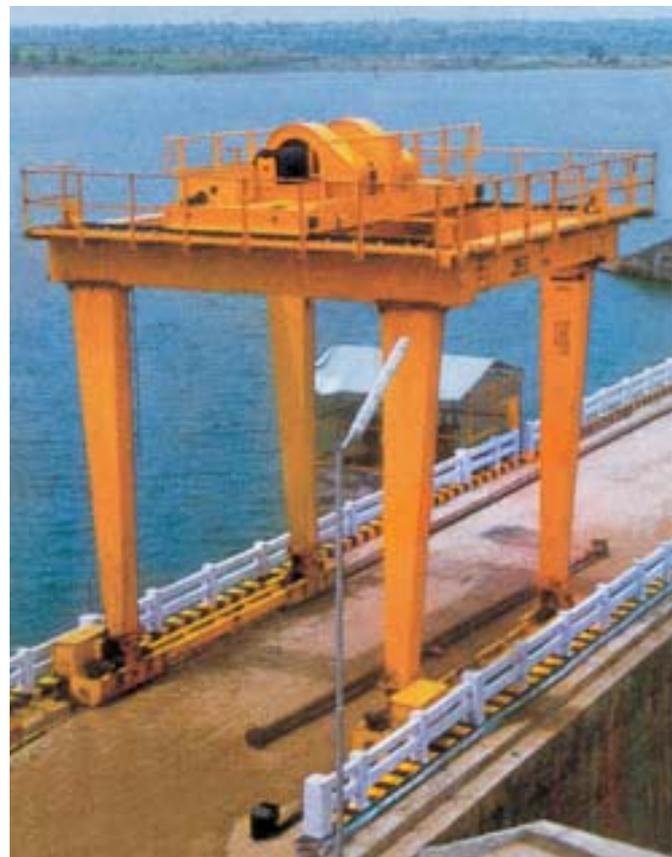


Asia's largest hydraulic gates by TSL for Srisaillam Hydel Project

company is sick and stands referred to BIFR. The revival plan sanctioned by BIFR has failed. The production during the year 2004-05 is likely to be Rs. 1.50 crore. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).

4.15 TUNGABHADRA STEEL PRODUCTS LTD.

The company was initially established in 1960 as a joint enterprise of the Governments of Karnataka and Andhra Pradesh. Tungabhadra Steel Products Ltd. (TSP) became a Govt. company in February, 1967. The company became a subsidiary of BYNL in April, 1987. The company is engaged in design, manufacture and erection of hydraulic structures, penstocks, building structures, transmission line towers, EOT & gantry cranes, etc. The production of the company is anticipated to be Rs. 10.00 crore during 2004-05. The company is being reviewed in the light of



Gantry Crane by TSPL.

Public Sector Policy under National Common Minimum Programme (NCMP).

4.16 HINDUSTAN CABLES LTD.

Hindustan Cables Ltd. (HCL) was set up in 1952 as the first telecommunication cable manufacturing unit in the country. The company has units in Rupnarainpur, West Bengal; Naini, Allahabad, U.P. & Hyderabad, Andhra Pradesh.

The company is engaged in manufacture of a wide range of sophisticated telecommunication cables and wires and is catering to the needs of vital sectors like Railways, Defence, communication etc. The company is sick and is under reference to BIFR. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).

The production of the company during the year 2004-05 is anticipated to be Rs. 10.00 crore.

4.17 HEAVY ENGINEERING CORPORATION LTD.

Heavy Engineering Corporation Ltd. (HEC), Ranchi was incorporated in December, 1958 with the primary objective of achieving self-sufficiency and self-reliance in the field of design and manufacture of equipment and machinery for the Iron and Steel Industry and other core sector industries like, Mining, Metallurgy etc. It has three manufacturing units namely Heavy Machine Building Plant (HMBP), Heavy Machine Tools Plant (HMTP) and Foundry Forge Plant (FFP). The company manufactures a wide range of equipments for steel plants, material handling equipment like wagon tippers and EOT cranes, heavy machine tools including

CNC Machine tools and special purpose machine tools and various types of castings, forgings and rolls etc. The company is sick and referred to BIFR. The company's production during the year 2004-05 is anticipated to be Rs. 185.00 crore. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).

4.18 HMT LTD. (Holding Company with Tractor Divn.)

HMT Ltd., Bangalore was set up in 1953. The company is engaged in the manufacture of Machine tools, Watches, Tractors, Printing machinery, special purpose machines, Presses and Dairy machinery. It has several manufacturing units all over the country.

The company has been making losses for the past few years. The Company's Turnaround plan approved by the Government in July, 2000 envisaged Organizational Restructuring by conversion of Business Groups into four new separate Subsidiary Companies and disinvestment of equity in these Subsidiaries. The Company has been restructured into HMT Limited, the Holding Company with Tractor Business in its fold, HMT Machine Tools Limited, HMT Watches Limited & HMT Chinar Watches Limited. Besides, the company has two wholly owned subsidiaries namely HMT(International) and HMT (Bearings)Ltd. and one partly owned subsidiary, Praga Tools Ltd.

The Tractor Division of HMT commenced its operations in 1971 with the manufacture of 25 HP Tractor at the manufacturing plant established in Pinjore, Haryana but subsequently, it has developed Tractors up

to 75 HP. Currently the company has three tractor manufacturing units in India located at Pinjore in Haryana, Mohali in Punjab and Hyderabad in Andhra Pradesh.

The production of HMT Holding Company (Tractors Division) is anticipated to be Rs. 235.38 crore during 2004-05. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).

4.19 HMT MACHINE TOOLS LTD.

HMT Ltd., the pioneer in Machine Tools Industry in India and manufacturer of a diversified range of products has incorporated "HMT MACHINE TOOLS LIMITED" as its fully owned subsidiary in 1999. It has its manufacturing units at five locations with each unit specializing in a particular family of Machine Tools. The sales and service network is spread across the length and breadth of the country. All the manufacturing units of HMT-MT Ltd. are ISO 9001 certified. The production of the company in 2004-05 is anticipated to be Rs. 265.00 crore. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).



Printing Machine manufactured by HMT.

4.20 HMT WATCHES LIMITED

HMT Limited, the first company to start watch manufacturing in India, has

incorporated "HMT Watches Ltd." as its fully owned subsidiary in 1999. It manufactures mechanical and quartz analog watches.

The manufacture of wrist watches started at Bangalore as a part of diversification strategy of HMT in the year 1962, under technical collaboration with Citizen Watch Company of Japan.

HMT Watches Ltd. comprises 3 manufacturing units at Bangalore, Tumkur and Ranibagh while its marketing headquarters is based in Bangalore. All its manufacturing units have obtained the ISO 9001 certification.



Quartz watches manufactured by HMT.

The product range of HMT Watches Ltd. caters to all segments of the market, from economy to premium and from the young age group to the old. HMT brand enjoys a very high brand equity in the Indian Market. The brand has consecutively been adjudged as one of the most recalled Indian brands in surveys by leading agencies in

the country. The production of the company during 2004-05 is anticipated to be Rs. 40.00 crore. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).

4.21 HMT CHINAR WATCHES LIMITED

HMT Limited incorporated "HMT Chinar Watches Limited" as its fully owned subsidiary in the year 2000. It manufactures Mechanical gents' watches. HMT Chinar Watches Limited comprises one manufacturing Unit at Srinagar, J&K and an assembly unit at Jammu with Registered Office at Jammu.

The quality and reliability of HMT watches has been the main selling feature and attraction of the consumer. HMT Chinar Watches Limited markets its products through the wide marketing network of HMT Watches Limited.

HMT Chinar Watches Limited has the manufacturing capacity of 5 lakh watches per annum. The production of the company in 2004-05 is anticipated to be Rs. 2.50 crore. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).

4.22 PRAGA TOOLS LTD.

Praga Tools Ltd. (PTL), Secunderabad, originally incorporated as a Public Limited Company in 1943, became a Central Public Sector Undertaking in 1959. PTL became a subsidiary of HMT Ltd. in 1988 when 51% of the share capital of the company was transferred in the name of HMT Ltd.

The company has been manufacturing various types of machine tools viz. CNC

cutter & tool grinder, surface grinder, CNC milling machine, thread rolling machine, Jig boring machine and CNC jig boring machines etc. The company is sick and referred to BIFR. The production during the year 2004-05 is anticipated to be Rs. 22.58 crore. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).



CNC Horizontal Machining Centre by PTL.

4.23 HMT (BEARINGS) LTD.

HMT (Bearings) Ltd. (erstwhile Indo-Nippon Precision Bearings) was established in the year 1964 as a state public sector company. In the year 1981, this company became a central public sector undertaking as a subsidiary of HMT Ltd. The production of the company during the year 2004-05 is anticipated to be Rs. 30.00 crore. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).



Bearings produced by HMT (B).

4.24 HMT (INTERNATIONAL) LTD.

HMT (I) Ltd. was established in December, 1974 as a trading company for giving greater thrust to exports of the products of the parent company, HMT Ltd. The major items for exports are machine tools, watches and other associated products which are being exported to Africa, USSR, USA, Canada, Australia etc. The turnover of the company during the year 2004-05 is anticipated to be Rs. 37.00 crore.

4.25 INSTRUMENTATION LTD.

Instrumentation Ltd., Kota (ILK) was set up in 1964. The company has three manufacturing units at Kota, Rajasthan, Jaipur, Rajasthan and Palakkad, Kerala and also has a subsidiary namely, M/s Rajasthan Electronics and Instruments Ltd. (REIL) at Jaipur. The company is engaged in manufacture of micro processor based and digital distributed control systems, advanced electronic transmitters, fault tolerant control systems, railway signaling systems, telecommunication equipment etc.

Government have approved reservation of orders to the extent 10% of the requirement of telephone exchanges by BSNL for a period of three years. The production of ILK

in the year 2004-05 is anticipated to be Rs. 170.00 crore. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).

4.26 RAJASTHAN ELECTRONICS & INSTRUMENTS LTD.

Rajasthan Electronics & Instruments Ltd. (REIL) was set up in 1981 as a Joint Venture of Instrumentation Ltd., Kota and RIICO for manufacture and supply of Electronic Milk Testers (EMT) to various milk plants/dairies, milk chilling centres and village cooperative societies. The company has diversified its product range to include Solar photo voltaic modules/system, Electronic Energy meters and Information technology. By virtue of its financial performance, the PSE has gained the status of 'Miniratna'. The production of the company during the year 2004-05 is anticipated to be Rs. 41.60 crore.



Smart Card based Automatic Milk Collection Station (Smart AMCS) designed by REIL.

4.27 NATIONAL INSTRUMENTS LTD.

National Instruments Ltd. (NIL), was incorporated as a PSE in 1957 after taking over the assets and liabilities of National Instruments Factory, a departmentally run workshop under the then Ministry of Production and Supplies. The company is engaged in the manufacture and trading of various types of Optical & Opto Electronic Surveying Instruments including Pressure & Vacuum Gauges, Cameras, Gas Meters,

etc. together with sophisticated Night Vision devices. The company became sick and was referred to BIFR. A revival plan was sanctioned by BIFR in November 1999. However, the company's performance continues to be poor. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).

4.28 SCOOTERS INDIA LTD.

Scooters (India) Ltd. (SIL) was incorporated as a Government of India enterprise in 1972. At present, three wheelers are manufactured in its factory located in Lucknow. The company became sick and was referred to BIFR. The company has achieved turn around in its performance and posted profits consecutively for the last few years. With the improvement in the performance of the company, it has come out of the purview of BIFR. The company is likely to achieve a production of Rs. 138.66 crore during 2004-05.

4.29 BHARAT OPHTHALMIC GLASS LTD.

Bharat Ophthalmic Glass Ltd. (BOGL) was set up in 1972 and took over the Ophthalmic Glass Plant at Durgapur from the National Instruments and Ophthalmic Glass Ltd. The company has been manufacturing ophthalmic blanks, flint buttons, optical glass, radiation shielding window (RSW) glass and other special quality optical glasses for the Defence, Nuclear and other sectors. The company became sick and was referred to BIFR. BIFR has recommended winding up of the company. The operations of the company have stopped since March, 2003. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).

4.30 CEMENT CORPORATION OF INDIA LTD.

Cement Corporation of India Ltd. (CCI) was established in 1965 with the principal objective of setting up cement factories in Public Sector to achieve self-sufficiency in cement production and to remove regional imbalance. It has 10 production units spread over 8 States/Union Territories, located in Mandhar, Akaltara in Chattisgarh; Nayagaon in MP; Kurkunta in Karnataka; Bokajan in Assam; Rajban in HP; Adilabad and Tandur in AP; Charkhi Dadri in Haryana and Delhi Grinding unit in Delhi.

The performance of CCI has been adversely affected due to severe liquidity crunch and



Cement Plant of Cement Corpn. of India at Rajban, Himachal Pradesh.

infrastructural constraints particularly related to power shortage. 7 units out of 10 are non-operational due to various reasons. The company became sick on 8.8.1996 and was referred to BIFR. After due consideration, the BIFR has directed the CCI to approach Ministry of Labour for seeking their approval for closure of such non-operating units. Further, as directed by BIFR, OA has appointed a merchant banker to complete the sale of CCI as a whole as a going concern basis or its units individually or collectively. The production for the year 2004-05 in the running units is anticipated

to be Rs. 203.48 crore. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).

4.31 HINDUSTAN PAPER CORPORATION LTD.

Hindustan Paper Corporation Ltd. (HPC), incorporated in 1970, is engaged in manufacture of paper, paperboards, Craft Paper and newsprint. HPC is a Holding company and has 2 subsidiaries and two major integrated pulp and paper mills under its control as given below:

Subsidiaries of HPC

- a) Hindustan Newsprint Ltd. (HNL)
- b) Nagaland Pulp & Paper Company Ltd. (NPPC).



Pulp mill washers at Cachar Paper Mill of HPC.

Units of HPC

- (i) Nagaon Paper Mills (NPM)
- (ii) Cachar Paper Mills (CPM)

The production of the company (NPM and CPM) during the year 2004-05 is anticipated to be Rs. 585.23 crore.

4.32 NAGALAND PULP & PAPER COMPANY LTD.

Nagaland Pulp & Paper Company Ltd. (NPPC) is a subsidiary of Hindustan Paper Corporation (HPC). HPC holds 94.78% of

the equity shares and the Government of Nagaland holds the balance 5.22%. The company which came out of the purview of BIFR due to financial restructuring again became sick as the revival scheme could not be put into operation due to law and order problem, lack of infrastructure and absence of banking facilities. There is no production activity in the plant. BIFR has recommended winding up of the company.

4.33 HINDUSTAN NEWSPRINT LTD.

Hindustan Newsprint Ltd. (HNL) originally started as a unit of HPC was converted into a wholly owned subsidiary of HPC in August, 1983. This mill with annual capacity of 1 lakh MT is located in the State of Kerala and is engaged in the production of newsprint. The company has commissioned a De-inking Plant at a cost of Rs. 52.20 crore. This is likely to improve the financial health of the company and reduce its dependence on forest resources. The production during the year 2004-05 is anticipated to be Rs. 270.51 crore.

4.34 HINDUSTAN PHOTO FILMS MANUFACTURING COMPANY LTD.

Hindustan Photo Films Manufacturing Company Ltd. (HPF) was established in 1960 with the objective of ensuring regular supply of raw cine films to the motion picture industry, X-ray films for health services and Defence Forces and special photographic materials for photographers. The company has two manufacturing plants, the main factory at Ootacamund and a plant at Ambattur near Madras. HPF started production in 1967. The company undertakes both integrated production and jumbo conversion. The products manufactured by integrated production are cine films positive (black & white), cine

films sound negative, medical X-ray films, photographic paper and amateur roll film (black and white). The company has set up a project for manufacture of polyester based medical x-ray, industrial x-ray and graphic arts films. The company is sick and is under reference to the BIFR. The production of the company during the year 2004-05 is anticipated to be Rs. 22.68 crore. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).

4.35 HINDUSTAN SALTS LTD.

Hindustan Salts Ltd. (HSL), set up in 1959, is engaged in the production of common salt and salt-based chemicals at its three units located at Kharaghoda, Gujarat; Mandi, Himachal Pradesh and Ram Nagar, Uttar Pradesh. The company is sick and referred to BIFR. Its production during the year 2004-05 is anticipated to be Rs. 8.28 crore. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).

4.36 SAMBHAR SALTS LTD.

Sambhar Salts Ltd. (SSL) is a subsidiary of Hindustan Salts Ltd. (HSL). The paid up capital of the company is Rs. 1 crore, 60% of which has been subscribed by HSL and balance 40% by the Government of Rajasthan. The company is producing salt, both for edible and industrial use, and salt based chemicals. The production of the company during the year 2004-05 is anticipated to be Rs. 7.59 crore. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).

4.37 NEPA LTD.

NEPA Ltd. (NEPA), formerly, the National Newsprint & Paper Mills Ltd. was initially set up in 1947 in private sector. Later on, in October, 1949, its management was taken over by the State Government. Central Govt. acquired the controlling interest in 1959 by conversion of loans into equity and it became a central PSE. The company produces Newsprint and paper. The company became sick and was referred to BIFR. Final recommendations of BIFR are awaited. However, The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP).

The production of the company during the year 2004-05 is anticipated to be Rs. 50.46 crore.

4.38 TYRE CORPORATION OF INDIA LTD.

Tyre Corporation of India Ltd. was incorporated in 1984 after the nationalization of two sick companies, namely, M/s Incheck Tyres Ltd. and M/s National Rubber Manufacturers Ltd. Three units of the company have been : (1) Tyre Division at Kankinara, (2) Industrial Rubber Products Division at Tangra and (3) Reclaimed Rubber Unit at Kalyani (West Bengal). The production line covers Automobile Tyres & Tubes, Nylon Conveyor Belts, Hoses, Vee and Fan Belts etc. The Company is sick and is under reference to BIFR. Tangra unit has since been closed after necessary permission from the competent authority. The company is being reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP). The production during the year 2004-05 is anticipated to be Rs. 101.71.

4.39 BHARAT LEATHER CORPORATION LTD.

Bharat Leather Corporation Ltd. (BLC) was set up in 1976 to undertake promotional and developmental activities besides commercial activities like procurement and marketing of leather goods, leather footwear etc. All the employees of the company have availed VRS with financial assistance from Government in April, 2001. BLC has filed a writ petition in Allahabad High Court for winding up of the company under Section 433 of Companies Act, 1956.

4.40 ENGINEERING PROJECTS (INDIA) LTD.

Engineering Projects (India) Ltd. (EPI) is a premier turnkey contracting company incorporated in the year 1970. The company's field of operation is extensive and includes projects relating to civil and structural engineering, material handling, metallurgy, petrochemicals, environment and pollution control etc. After the financial restructuring of the company in 2001, the



Musical Fountain in Operation in Ahmedabad constructed by EPI.

company has turned around and has posted profits. The company declared a dividend of 10% on equity for the financial year 2003-04 after a gap of 26 years. In the current year 2004-05 also, EPI has declared an interim dividend of 5% on equity.

The turnover of the company during the year 2004-05 is anticipated to be Rs. 562.18 crore.

4.41 NATIONAL INDUSTRIAL DEVELOPMENT CORPORATION LTD.

The National Industrial Development Corporation Ltd. (NIDC) was established by the Government in 1954. The company has been providing consultancy services in the field of Civil Engineering Projects, Industrial Townships, Water Supply & Treatment, Restructuring, Technology upgradation, Industrial Projects and development of Computerized Management Information System. The company has been making losses for last few years and has not been able to sustain its operations. Therefore, Government took a decision for closure of the company in April 2002. All employees of the company opted for VRS. Winding up process was initiated in Delhi High Court. The court has ordered winding up of the Company on 13.1.2005 and appointed Official Liquidator.

5

Heavy Electrical Industry and other Industrial Machinery Sectors

5.1 Heavy Electrical Industry covers power generation, transmission, distribution and utilisation equipment. These include turbo generators, boilers, various types of turbines, transformers, switch gears and other allied items. The demand for power generation equipment depends upon power development programme/generation targets. The targets for additional power generation during the Tenth and Eleventh Plan Period is one lakh Mega Watt, i.e. addition of about 10,000 MW per year. New power plants to be set up will generate substantial demand for heavy electrical equipment. It may be mentioned that major portion of the equipment successfully in operation in the power sector has been produced, installed and commissioned by the Indian Electrical Industry.

Electrical equipments such as transformers, switchgears etc. are used by all sectors of the Indian Economy. Some major areas

where these are used are the multi crore projects for power generation including nuclear power stations, petrochemical complexes, chemical plants, integrated steel plants, non-ferrous metal units etc. The Industry has been upgrading the existing technology and is now capable of taking up turnkey contracts also for export markets. The Industry has been delicensed. Foreign collaborations are also allowed with 100% FDI.

A strong manufacturing base has already been established for heavy electrical equipment and existing installed capacity of the industry is of the order of 4,500 MW of thermal, 1,345 MW of Hydro and about 250 MW of Gas based power generation equipment per annum. The Indian Heavy Electrical Industry is also capable of manufacture and supply of equipment required for setting up nuclear power plants. The present share of the Indian

industry is about 66% in the country's power generation capacity.

The Heavy Electrical Industry is capable of manufacturing transmission and distribution equipment upto 400 KV AC and high voltage DC. The industry has taken up the work of upgradation of transmission to the next higher voltage system of 765 KV and have upgraded their manufacturing facilities to supply 765 KV class transformers, reactors, CTS, CVT, bushing and insulators etc. Large electrical equipment used in Steel plants, Petrochemical complexes and other such heavy industries are also being manufactured in the country.

The domestic Heavy Electrical equipment manufactures are making use of the developments in the global market with respect to product designs and upgrading of manufacturing & testing facilities.

A status report covered under Heavy electrical Industry is given below:-

5.2 TURBINES & GENERATOR SETS

The capacity established for manufacture of various kinds of turbines such as steam & hydro turbines including Industrial turbines is more than 7000 MW per annum. Apart from BHEL, the public sector unit which has the largest installed capacity, there are units in the private sector also manufacturing steam & hydro turbines for power generation & Industrial use. The manufacturing range of BHEL includes steam turbines upto 660 MW unit rating and the facilities are available for 1000 MW unit size. They have capability to manufacture Gas Turbines upto 260 MW (ISO) rating and gas turbine based co-generation and combined cycle systems for



Turbo Generator for Libya Project (4x150 MW) manufactured by BHEL.

industry and utility applications. Custom-built conventional hydro turbines of Kaplan, Francis and Pelton types with matching generators are also available indigenously.

AC Generators manufactured in India are on par with international AC Generators and consistently deliver high quality power with high performance. Domestic manufacturers are capable of manufacturing AC Generator right from 0.5 KVA to 25,000 KVA and above with specified voltage rating.

The import and exports during 2003-04 were Rs. 1292.39 crore and Rs. 239.28 crore respectively.



Steam Turbine under manufacture at BHEL.

5.3 BOILERS

BHEL is the largest manufacturer of boilers in the country (with more than 60 % share)

and has the capacity to manufacture boilers for Super Thermal Power Plants apart from utility boilers and industrial boilers. The industry has the capability to manufacture boilers with super critical parameters upto 1,000 MW unit size. The domestic industry has the capacity to meet the indigenous requirement/ demand for boilers.

The import and exports during 2003-04 were Rs. 72.73 crore and Rs. 156.06 crore respectively. The exports during the year have grown by 153%.

5.4 TRANSFORMERS

The domestic transformers industry is well established with capability to provide state of art equipments. The industry has the capacity to manufacture whole range of power and distribution transformers including the REC rating of 25,53,100 KVA and also the extra High voltage ranges of 400 KV, 600 MVA. Special types of transformers required for furnaces, rectifiers electric tract etc. and series and shunt reactors as well as HVDC transmission upto 500 KV are also being manufactured in the country.

The exports during 2003-04 were Rs. 778.33 crore and have grown by 56%.

5.5 SWITCHGEAR AND CONTROL GEAR

In India, the entire range of circuit breakers from bulk oil, minimum oil, air blast, vacuum to SF6 are manufactured to standard specification for the benefit of customers. The range of products produced cover the entire voltage range for 240V to 800KV. Switchgear and control gear, MCBs, air circuit breakers, switches, rewirable fuses and HRC fuses with their respective fuse bases, holders and starters.

The industry is competitive in the field of design and engineering as the skill sets available in the country are relatively less expensive.

The exports during 2003-04 were Rs. 654.31 crore and have grown by 32%.

5.6 ELECTRICAL FURNACE

Electrical Furnaces are used in Metallurgical and Engineering industries like forging and foundry, machine tools, automobiles etc. Adequate capacity for production of these products has been established. The exports during 2003-04 were Rs. 54.83 crore and have grown by 168%.

5.7 SHUNTING LOCOMOTIVES

Shunting locomotives for localized / internal transport facilities are used in Railways, Steel Plants, Thermal power plants etc. BHEL's Jhansi Unit among others is manufacturing such locomotives. The installed capacity is adequate to meet the domestic demand.

5.8 TEXTILE MACHINERY INDUSTRY

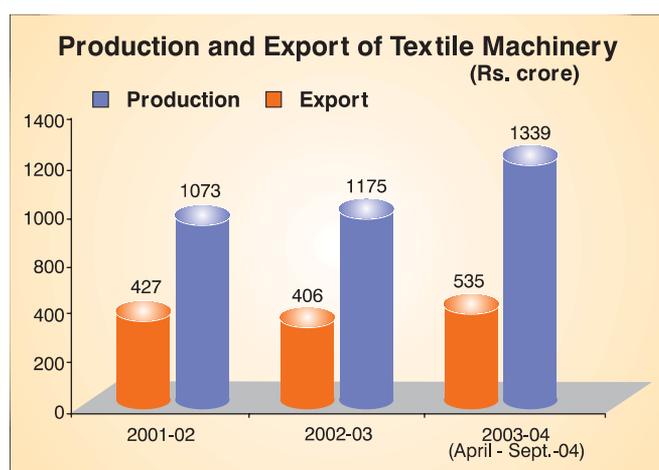
Indian Textile Machinery Manufacturers are manufacturing textile machinery required for sorting, cording, processing of yarns/



Circular Weaving Machine.

fabrics and weaving along-with the components, spares and accessories. There are over 600 units engaged in the manufacture of machinery and spares out of which about 100 units are manufacturing complete machinery.

The industry is gearing itself to avail of opportunities of supplying machines required to cater the export target of garment manufacturers post MFA.



With a capital investment of Rs. 1500 crore and an installed capacity of Rs. 3600 crore per annum, their current production as well as exports are as under: -

(Rs. crore)

Year	Production	Exports
2001-02	1073	427
2002-03	1175	406
2003-04	1339	535

5.9 CEMENT MACHINERY INDUSTRY

Manufacturers are manufacturing and supplying complete cement plants based on dry processing and pre-calcination technology for capacities upto 7500 TPD. Modern cement plants are designed for zero downtime, high product quality and better output with minimum energy consumed per unit of cement production etc. At present, there are 18 units in the

organized sector for the manufacture of complete cement plant machinery. The industry is fully capable to meet the domestic demand of cement machinery. The value of the existing installed capacity has been estimated at Rs. 600 crore/annum.

5.10 SUGAR MACHINERY INDUSTRY

Domestic manufacturers occupy predominant position in the global scenario. They are capable of manufacturing sugar plants of latest design for a capacity upto 10,000 TCD (tons crushing per day). There are presently 27 units in the organised sector for the manufacture of complete sugar plants and components with installed capacity of Rs. 200 crore.

The manufacturers can design and manufacture from concept to commissioning entire plant of latest design. The import and export performance is indicated below:

(Rs. Lakh)

	2001-02	2002-03	2003-04
Import	3.0	1.70	427
Export	253	852	1139

5.11 RUBBER MACHINERY INDUSTRY

There are at present 19 units in the organized sector for the manufacture of rubber machinery mainly required for tyre/tube industry. The range of equipments manufactured in the country includes inters-mixer, tyre curing presses, tube splicers, bladder curing presses, tyre moulds, tyre building machines, turnet servicer, bias cutters, rubber injection moulding machine, bead wires etc. There is gap in technology for the manufacture of high speed calendaring line particularly for heavy earthmoving equipment and the like.

In the past the Industry has secured export orders against stiff international competition for tyre tube curing presses tube splicers etc.

Import-Export Performance

(Rs. crore)

	2001-02	2002-03	2003-04
Import	11.35	12.81	25.91
Export	11.04	15.25	22.29

5.12 MATERIAL HANDLING EQUIPMENT INDUSTRY

The range of equipments manufactured includes crushing and screening plants, coal/ore/ash handling plant and associated equipment such as stackers, reclaimers, ship loaders/unloaders, wagon tippers, feeders etc. catering to the growing and rapidly changing needs of the core industries such as Coal, Cement, Power, Port, Mining, Fertilizers and Steel plants.

There are 50 units in the Organised sector for the manufacture of material handling equipment.

Besides units in the organized sector, there are number of units operating in the small-scale sector manufacturing material handling equipments and its components. This industry is more or less self sufficient in meeting domestic demand and are capable of meeting global competition.

Import-Export performance

(Rs. crore)

	2001-02	2002-03	2003-04
Import	124.10	175.96	242.58
Export	22.09	22.21	41.54

5.13 OIL FIELD EQUIPMENT

The petroleum industry in India is undergoing a major change. In accordance with the ongoing process of liberalisation, the industry has been thrown open for private sector in all the major areas of exploration, production, refining and marketing, resulting in increased demand for the oil field and related equipment. The users are ONGC, Oil India Ltd. on charter-hire basis.

Domestic manufacturers are manufacturing drilling rigs for on shore drilling. For Offshore drilling like jack-up rigs etc. are not being manufactured indigenously. However, offshore platforms and some other technological structures are being produced locally. The major producers are BHEL, Hindustan Shipyard, Mazagon Dock and Burn & Co.

Import-Export performance

(Rs. crore)

	2001-02	2002-03	2003-04
Import	154.04	63.03	142.49
Export	36.68	15.56	165.81

5.14 METALLURGICAL MACHINERY

Metallurgical machinery includes equipment for mineral beneficiation, ore dressing, size reduction, steel plant equipments, foundry equipments and furnaces.

At present there are 39 units in the organized sector engaged in the manufacture of various types of metallurgical machinery.

The existing production capacity in the country is sufficient to meet the demand of these equipments in the country. However, there is a technological gap in the basic

design and engineering for plants and equipments in the ferrous and non-ferrous sector for which the domestic manufacturers are dependent on imported know-how. Since the process of making ferrous and non-ferrous metal is linked up with the design of the equipment, there is a need for close interaction between the process know-how, designers and equipment manufacturers.

Indigenous manufacturers are in a position to supply majority of the equipment for steel plant like blast furnaces sinter plants, coke ovens steel melting shop equipment, continuous casting equipment, rolling mills & finishing line.

(Rs. crore)

	2001-02	2002-03	2003-04
Import	191.80	244.18	495.28
Export	126.60	267.96	434.23

5.15 MINING MACHINERY

The major mining equipments are Longwall Mining Equipments, Road Header, side discharges Loader (SDL), Haulage Winder, Ventilation Fan, Load Haul Dumper (LHD), Coal Cutter, Conveyors, Battery Locos, Pumps, Friction Prop, etc.

At present there are 32 manufacturers in the organized sector both in public and private sector for underground and surface mining equipment of various types. Out of these 17 units manufacture underground mining equipment.

The vast majority of mining equipment requirement of the mining industry is being met by the indigenous manufacturers of the equipment. In case of some highly sophisticated equipment, critical parts are imported.

(Rs. crore)

	2001-02	2002-03	2003-04
Import	28.93	70.52	16.80
Export	0.11	0.11	1.15

5.16 DAIRY MACHINERY INDUSTRY

The range of equipment presently manufactured by the indigenous manufacturers includes stainless steel dairy equipments, evaporators, milk refrigerators and storage tanks, milk and cream deodorizers, centrifuges, clarifiers, agitators, homogenisers, spray dryers and heat exchangers (tubular and plate type) etc. At present there are 16 units manufacturing dairy machinery and equipment in the organized sector, both in private and public sector. The spray dryers, plate type heat exchanger and other core equipments for milk powder plant call for high degrees of polish requirement on the equipments because the presence of any micro services resulting from inadequate polish tends to be the incubation and breeding ground for the bacteria.

Small scale sector is also contributing to indigenous production for fabricated equipments for dairy industry. The technology gap exist for handling equipments such as self cleaning cream, separator, aseptic processing systems, etc. The processing technology for manufacture of yoghurt and traditional Indian sweets plant equipment is also deficient.

(Rs. crore)

	2001-02	2002-03	2003-04
Import	5.35	7.29	18.15
Export	2.78	4.44	10.54

5.17 MACHINE TOOL INDUSTRY

Machine Tool Industry, which is the backbone of the entire industrial engineering sector, is today in a position to export general purpose and a standard machine tool to even industrially advanced countries. During the last four decades, the machine tool industry in India has established a sound base and there are around 125 machine tool manufacturers in the organized sector as also around 300 units in the small ancillary sector.

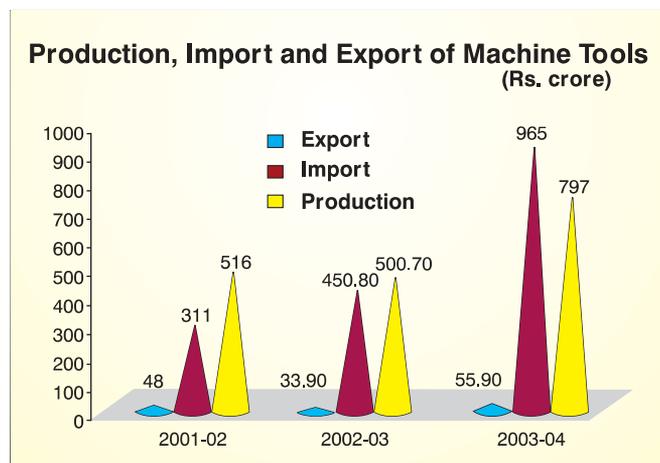
Though Indian Machine Tool Manufacturers produce General Purpose Machines of international standards in terms of quality and precision, however, they lack design and engineering capability to undertake very high precision CNC Machines. Some companies have taken up manufacture of CNC Machines, however, there is need to upgrade R&D in this field. Even though CMTI, Bangalore is engaged in the Design & Engineering of product improvement of various Machine Tools.

Indian machine tools are manufactured to the international standard of quality/



CNC machining Centre manufactured by HMT (Machine Tools) Ltd.

precision and reliability. Most of the major manufacturers have already developed Computerised Numerically Controlled Machine Tools. A number of collaborations have also been approved for bringing in the latest technology in this field of modern machine tools and the industry is now exporting conventional as well as NC/CNC high-tech machine tools. In the field of R & D, Central Manufacturing Technology Institutes, Bangalore has been doing research for more appropriate designed machine tools. The sector is delicensed and import is also permitted. There is gap in technology for Special Purpose Machines and even in some categories of CNCs. Import of technology is encouraged to bridge the gap.



The production, import and export data furnished by the Machine Tools Manufacturing Association for 2001-02, 2002-03 and 2003-04 are as under: -

(Rs. crore)

	2001-02	2002-03	2003-04
Production	516.00	500.70	797.00
Import	311.00	450.80	965.00
Export	48.00	33.90	55.00

6

Automotive Industry

6 Overview of the Automotive Industry:

6.1 On the canvas of the Indian Economy, Auto Industry occupies a prominent place. Due to its deep forward and backward linkages with several key segments of the economy, automotive industry has a strong multiplier effect and is capable of being the driver of economic growth. A sound transportation system plays a pivotal role in the country's rapid economic and industrial development. The well-developed Indian automotive industry ably fulfils this catalytic role by producing a wide variety of vehicles: passenger cars, light, medium and heavy commercial vehicles, multi-utility vehicles such as jeeps, scooters, motor-cycles, mopeds, three wheelers, tractors etc.

6.2 Although the automotive industry in India is nearly six decades old, until 1982, only three manufacturers – M/s. Hindustan

Motors, M/s. Premier Automobiles & M/s. Standard Motors tenanted the motorcar sector. Owing to low volumes, it perpetuated obsolete technologies and was out of sync with the world industry. In 1982, Maruti Udyog Limited (MUL) came up as a Government initiative in collaboration with Suzuki of Japan to establish volume production of contemporary models. After the lifting of licensing in 1993, 17 new ventures have come up, of which 16 are for manufacture of cars. There are at present 12 manufacturer of passenger cars, 5 manufacturers of MUVs, 9 manufacturers of Commercial Vehicles, 12 of two wheelers, 4 of three wheelers and 14 of tractors besides 5 manufacturers of engine.

6.3 The industry comprising of the automobile and the auto component sectors has shown great advances since delicensing and

opening up of the sector to FDI in 1993. The industry has an investment of a sum exceeding Rs. 50,000 crore. During the year 2003-04 the turnover of the automotive sector was around Rs. 1,00,000 crore. The industry provides direct employment to 4.5 lakhs and generates indirect employment of 1 crore. The contribution of the automotive industry to GDP has risen from 2.77% in 1992-93 to 4% in 2003-04.

6.4 Automobile Industry:

6.4.1 Installed capacity:

The Automobile Manufacturers have put up a robust manufacturing capacity of 95 lakh plus vehicles per annum since 1993. Today India is the world's second largest manufacturer of two wheelers, fifth largest manufacturer of commercial vehicles and manufactures largest number of tractors in the world. The country offers fourth largest passenger car market in Asia today. A supplier driven market, having no more than a handful of vehicular models two decades ago, now offers more than 150 models and variants by way of customer options. The installed capacity of the automobile sector during the year

2003-04 was as under:

S. No.	Segment	Installed capacity (in nos.)
1.	Four wheelers	1,590,000
2.	Two & Three Wheelers	7,950,000
3.	Grand Total	9,540,000

6.4.2. Production:

One of the largest industries in India, automotive industry has been witnessing impressive growth during the last two decades. Abolition of licensing in 1991, permitting automatic approval and successive liberalisation of the sector over the years have led to all round development of this industry. The freeing of the industry from restrictive environment has, on the one hand, helped it to restructure, absorb newer technologies, align itself to the global developments and realise its potential and on the other hand, this has significantly increased industry's contribution to overall industrial growth in the country. Overall automobile sector bagged a growth of 15.12% in 2003-04. During the year 2004-05 (upto April-Sept. 2004) the Industry has registered a growth rate of 15.06%. The details of actual production during 2003-04 and 2004-05 (upto April-Sept.2004) are given below:

S. No.	Name of the Sector	No. of units	(in Nos.)	
			Production	
			2003-04	2004-05 (April-Sept. 04)
1.	Commercial Vehicles	9	275224	156815
2.	Cars	12	842437	465983
3.	Multi-Utility Vehicles	5	146103	114739
4.	2-wheelers	12	5624950	3023805
5.	3-wheelers	4	340729	177554
	Total	42	7229443	3938896

6.4.3 Export :

Automotive industry of India is now finding increasing recognition worldwide and a beginning has been made in exports of vehicles as well as components. The automobile industry along with the component industry is also contributing to

the export effort of the country. During the year 2002-03 the export of automobile industry had registered a growth rate of 65.35% while it was 55.98% during the year 2003-04. The details of exports during 2003-04 and 2004-05 (upto April-Sept. 2004) are given below:-

S. No	EXPORT	(in Nos.)	
		2003-04	2004-05 (April-Sept. 04)
1.	Commercial vehicles	17227	12575
2.	Passenger cars	126249	76076
3.	Multi- Utility Vehicles	3067	2164
4.	2-wheelers	264669	170978
5.	3-wheelers	68138	37901
TOTAL		479350	299704

6.5 Vehicular Pollution Control Measures of the Government:

Government initiated pollution & safety checks by notifying emission & safety standards from the year 1992 which were further tightened in April, 1996 under the Motor Vehicle Act. BHARAT STAGE-I (Equivalent to Euro I) emission norms have already been made applicable throughout the country and India is poised to induct BHARAT STAGE-II (Equivalent to Euro II) norms across the country by April 2005.

BHARAT STAGE-II norms are already applicable in four Metros. From April 2005, 7 metropolitan cities are going to switch over to BHARAT STAGE-III (Equivalent to Euro III) norms. To meet this emerging challenges of newer emission norms Indian automobile industry has already braced itself up with new investments and fresh technological inductions. A higher safety and emission standards regime requires adequate infrastructure for testing and certification of products domestically produced and imported. Existing testing infrastructure in the country are limited and are grossly inadequate to meet the future and emerging requirement of the automotive industry. Therefore there is a need to upgrade and set up testing infrastructure in the country. The Government in close cooperation and coordination with the industry has initiated several steps for upgrading the existing testing facilities and setting up of new testing infrastructure in the country.



Testing at ARAI, Pune for structural evaluation of all sheet metal components in Tractors.

6.6 Auto Components Industry:

6.6.1 Surge in automobile industry since the nineties has led to robust growth of the auto component sector in the country. Responding to emerging scenario, Indian auto component sector has shown great advances in recent years in terms of growth, spread, absorption of newer technologies and flexibility, despite multiplicity of technology platforms and low volumes. India's reasonably priced skilled workforce, large population of technology workers coupled with strengths gained by the country in IT and electronics all build up an environment for significant leap in component industry. The Indian auto component sector is being written up as the next industry, after software, that has the potential of becoming globally competitive. Indian Auto Component Industry, with a turn over of an approx Rs. 36,300 crore (2004-05,prov.) and manufacturing all the key components required for vehicle manufacturing, is an important sector of the Automotive industry. The phased Manufacturing Policy (PMP) followed in the 1980s enabled the component industry to induct new technologies, new products and a much higher level of quality in their operations that enabled quick and effective localization of the component base. The Indian auto component industry over the years has played a key role in the growth and development of the country's automotive industry.

The Indian auto component sector today has 420 key players who contribute more than 85% of the output of this sector. The vital statistics of the auto component sector during 2002-03 and 2003-04 are as under:

Indicators	2002-03	2003-04
Investment	Rs. 12,500 crore	Rs. 13,400 crore
Output	Rs. 24,500 crore	Rs. 30,640 crore
Exports	Rs. 3,800 crore	Rs. 4,550 crore
Employment	5,00,000 persons	5,00,000 persons

Indian auto component industry has seen major growth with the arrival of world vehicle manufacturers from Japan, Korea, US & Europe. Due to diversities in the technological profiles of these OEMs, the sector today produces large variety of components. Today, India is emerging as one of the key auto components center in Asia and expected to play a significant role in the global automotive supply chain in the near future.

6.6.2 Production:

Indian auto component industry is wide (over 420 firms in the organized sector producing practically all components and more than 10,000 firms in small unorganized sector, in tierized format) and has been one of the fastest growing segments of automotive industry, growing by over 28%, in nominal terms, between 1995-98. During the year 2003-04, the sector has recorded a growth of 25.06% by recording a production of the order of Rs. 30,640 crore. During the year 2004-05, the output of the Auto Component Industry is expected to be around Rs. 36,300 crore.

6.6.3 Export:

Component exports in the year 2003-04 have already crossed US \$ 1 billion. This, however, represents only about 0.8% of global component trade currently estimated at around US \$1.2 trillion. This is reflective of significant opportunities that lie ahead. Several export units have reached a

rejection rate below 5 parts per million (PPM) with many of them touching a zero PPM. On export front, auto component industry has registered a growth of 29% in the year 2003-04 which is expected to be around 30% in the year 2004-05. During the year 2003-04, total export was of the order of Rs. 4550 crore as compared to Rs. 3497 crore during the year 2002-03.

6.7 Agricultural Machinery

Agricultural Machinery mainly consists of Agricultural Tractors, Power Tillers, Combine Harvesters and other agriculture machineries and implements. Due to negligible production of Power Tillers, Combine Harvesters and other agriculture machineries, this sector is mainly dominated by agricultural tractors.

6.8 Agricultural Tractors

At present, there are 14 units in the organized sector manufacturing agricultural tractors covering a wide range from lower Horse Power in the range of 16-20 to higher Horse Power of 50 and above. The Indian Tractor Industry has a total investment of over Rs. 4500 crore. The industry employs over 25,000 people directly and over 1,00,000 people indirectly.

6.8.1 Performance of the Tractor Industry in 2003-04:

The Industry made a beginning in 1961 with a total production of 880 units. There has been a substantial growth in the production of tractors since late 1980s and the production has reached a level of 2,66,385 in 1999-2000. The tractor industry which grew at a CAGR of 8% between 1990-2000, has shown a sharp drop in the recent years. owing mainly to inadequate monsoon in some states. However the industry seems to have picked

up in the current year with the reduction in the excise duty and improvement in the credit delivery system for the sector. Production figures of tractors during the last few years are given below: -

Year	Numbers
1994-95	1,62,900
1995-96	1,91,149
1996-97	2,21,743
1997-98	2,56,258
1998-99	2,53,850
1999-00	2,66,385
2000-01	2,34,575
2001-02	2,15,000
2002-03	1,66,889
2003-04	1,90,687

The production of tractors in the range of 31-40 HP is around 60%, in the range of 41 HP and above is 23% and below 30 HP category is 17% of the total production.

6.8.2 Technological capabilities:

Though tractor industry started production by importing technology from renowned manufacturers in USA, UK, USSR, Germany, Poland, Czechoslovakia etc. Over the years, technology has been fully absorbed. Some tractor manufacturers have introduced higher Horse Power tractors of 75 HP with imported components for meeting the specific requirements of high HP category of tractors.

6.8.3 Markets:

Traditionally, Haryana, Punjab and Uttar Pradesh are the main States for the tractor market. The new markets for tractors in the States of Madhya Pradesh, Andhra Pradesh, Tamilnadu, Maharashtra, Rajasthan and Gujarat States are growing at a faster pace. According to an estimate 84% of the total tractors is concentrated in ten major states of the country.

6.9 Earth Moving and Construction Machinery

6.9.1 Earth Moving Equipment and Construction Machinery Industry play a vital role in the economic development of our country. This industry is closely linked with major development and infrastructural schemes such as coal and mineral mining, irrigation and power projects, ports, steel, fertilizers etc. The technology required to manufacture such machines was not earlier available. It was, therefore, necessary to permit import of technology for development of the same from internationally reputed manufacturers like KOMATSU, CATERPILLAR, POCLAIN, DRESSER, DEMAG & HITACHI. The earth moving equipment currently being manufactured cover Shovels up to 10 cu.m. capacity, Bulldozers up to 770 HP, Dumpers up to 120 HP, Excavators up to 8.5 cu.m. capacity, Scrapper and Motor Graders up to 280 HP and walking Draglines, Mobile cranes etc. Construction equipment, mainly road construction equipment such as graders, loaders, excavators, vibratory compactors, hot mix plants etc. are being manufactured indigenously. These machines help to speed up development in irrigation and power projects, coal and iron ore mining,

for excavation of lime stone for cement, for development and reclamation of vast track of land, building roads, making canals, preparing industrial sites and all facets of the country's development activity. These machines also reduce dependence on labour and provide automation in construction work.

6.9.2 Indigenous production of Earth-moving and Construction Machinery commenced in 1960s. Today, country is, by and large, self-sufficient in respect of these items. In fact, during the last decade, the industry has made enormous progress and has grown both in size and diversity. The total capacity available in the Earth Moving & Construction Equipment Industry is around 6000 nos. India has over 60 equipment manufacturers in organized sector besides several medium sized units. This industry is dominated by a few large manufacturers in each product segment. BEML supplies nearly half the total market. BEML and Caterpillar lead in dumpers and dozers while L&T Komatsu and Telecon lead in excavators and Escort JCB in Backhoe loaders. With the Government's emphasis and priority on the development of infrastructure, this group of industry is expected to grow in near future.

7

Technology Upgradation and R&D

7.1 A constant, conscious and concerted thrust on R&D is an essential ingredient to enable an enterprise to compete and survive in an increasingly competitive market environment. The deregulation of industry in its wake has brought the international competition at our doorstep further reinforcing the need for upgradation of technology to global standards. The changing demands of user sector also play a significant role in the selection of technologies and introduction of products. Given these realities, the Indian Industry which enjoyed protection for over four decades is bracing up to meet the challenge. The PSEs under the Department have also taken steps to acquire technology through technical and business alliances as well as pure R&D inputs. Areas where the country has specific advantages need to be strengthened to develop a brand image for the nation. In pursuance of these objectives,

some of the initiatives taken by the Department are as under:

7.1.1 Integrated gasification combined cycle (IGCC) project

Lately the increased production of SPM and green house gases in the atmosphere has worried the authorities and administrators alike. This has resulted in increased stress on more efficient methods of generation & utilization of energy through R&D initiatives. The Department of Heavy Industry in coordination with the Ministry of Power & close involvement of PSEs like BHEL and NTPC is supporting the Integrated Gasification Combined Cycle (IGCC) project. IGCC is combined cycle power plant wherein the fuel gas for gas turbine is generated by the gasification of coal (or any other carbonaceous fuels like refinery residues; such as pet coke, visbreaker tar etc.). The selection of the coal

gasification process - which is largely decided by the type of coal available, and its efficiency integration with a suitably designed gas turbine is of paramount importance in achieving higher overall efficiency of IGCC plant.

BHEL has already made some headway in identifying & developing a technology suitable for local coal which has higher ash content and the project will result in better utilisation of 'high ash' Indian Coal besides improving the efficiency of power generation and reducing pollution.

7.1.2 Testing and R&D infrastructure for Automotive Sector

In India, rapid industrialisation and consequent requirements for mobility of goods and passengers have led to high growth of vehicle population in recent years. Simultaneously, Emergence of statutory regulations on emission and safety has necessitated independent and comprehensive testing of vehicles and their major assemblies and sub-assemblies being manufactured and imported into the country. In consonance with the announced policy of positioning India as an international hub for manufacture of small cars, it is proposed to promote setting up of testing and R&D infrastructure in conformity with international safety and emission standards as also undertaking upgradation of existing facilities in the country to cater to the emerging needs of the auto sector.

7.2 R&D INITIATIVES BY THE PSEs

Some of the programmes of technology upgradation and R&D effort of the Public Sector enterprises under the Department of Heavy Industry are detailed below :

7.2.1 Bharat Heavy Electricals Ltd. (BHEL)

During the year 2003-04, BHEL achieved a turnover of Rs. 591 crore by commercializing products and systems through in-house R&D/technology developments. An amount of Rs. 104.74 crore was spent on R&D programmes, focusing on new product/system development, product improvements in terms of reliability/quality/cost and import substitution.

Major R&D and Technology Upgradation achievements of the company are as under:

- Established a 'Centre of Excellence for Simulators' dedicated to developing software packages for improving the operational efficiencies of power and process plants, and to developing training simulators for power plant operators. It facilitates to provide training to operators on a simulator. It is equipped with an array of sophisticated hardware like high-end workstations, state-of-the-art software and large format plasma displays.
- To enhance power transfer capability and improve system stability between two parallel 33 kV transmission lines, BHEL has developed, for the first time in India, a 2 MVA Phase Shifting Transformer (PST) with thyristor controlled static tap changer. This development is an innovation in the field of Flexible AC Transmission (FACTS) devices and has given a technological edge to BHEL in the transmission sector.
- A 145 kV Gas Insulated Switchgear (GIS) has been developed and tested successfully at the R.C. Puram,

Hyderabad Substations of APTRANSCO. GIS are replacing conventional yard substations to conserve space and ensure reliable power supply.

- Developed the electrics for three-phase AC drive system for a 700 HP diesel electric locomotive. The entire system was successfully tested at the Centre of Electric Transportation at Bhopal. The Railways are gradually shifting to three-phase AC drives because of their higher efficiency, ruggedness and reduced requirement of maintenance.
- Developed a Micro-Controller based Flame Scanner (MCFS) to detect flames of different fuels in boiler furnaces. The MCFS can reliably detect and discriminate between flames of oil and coal with a single optic sensor. The MCFS is a compact system, containing fewer modules compared to conventional system. The MCFS has been installed at Mettur Thermal Power Stations, where it has been in operation since August, 2003.
- Indigenously developed High Velocity Oxy Fuel (HVOF) coating on all the submerged parts of the turbines for Maneribhali Stage-II (4x76 MW) Hydro Electric Plant. HVOF coatings on hydro turbine parts help combat silt erosion.
- India's largest vertical AC motor of 6 MW, 6.6 kV, 1500 rpm capacity has been designed and developed for the first time in the country.
- Developed and tested a model for six jet Pelton hydro turbine, with a head of 789 metre for the 4 x 200 MW Parbati HEP. The model was designed, fabricated and tested at the Hydro Lab Bhopal. The test results indicate that the weighted average efficiency achieved is competitive vis-à-vis current international level.
- Commissioned a Performance Analysis, Diagnostics & Optimisation (PADO) system at Simhadri STPP, the first package of its kind in India. It facilitates optimized generation with minimum fuel consumption, timely diagnosis of faults, controlling important emission parameters like Nox and CO, thereby improving the availability and performance of the plant. The PADO system mainly consists of Boiler Performance Optimisation System (BPOS), Performance Analysis, Monitoring & Optimisation, Simulator System and Performance Diagnosis, Water Chemistry and Boiler Stress Analyser.
- Designed and developed low solidity vaned diffuser (LSD) for F-Type Impellers of Compressor used in Fertilizers and Process Industries, to augment stage pressure rise and efficiency without sacrificing the range of operation. A prototype with modified impeller stage was manufactured and tested at specially designed test rig and the performance compared with that of a conventional stage. The results indicated a rise of 2–3% both in the stage pressure ratio as well polytropic efficiency, while retaining the range of operation, thereby improving the overall performance of the compressor. The results of the project are being used for design improvement of the product for commercial application.

- developed in association with IIT, Delhi, an acoustic emission technique for condition monitoring of journal bearings of steam turbines. The main factors contributing to journal bearing damage are metal wipe and bearing tilt. The aim was to detect faults as early as possible, before conventional techniques such as vibration or temperature measurement, which can detect damage only after it has become critical. Experimental work was carried out using acoustic emission measurement in normal running and under rubbing conditions and contamination in the lube oil fed to the test bearing. Acoustic emission measurements were made on all the bearings of 120 MW turbine at the Pragati Power Corporation, Delhi. The experimental results have clearly shown the potential of acoustic emission in detecting rubbing faults and the effect of contaminants in sliding bearings.
- The 6.2 MW Combined Cycle Demonstration Plant (CCDP) with a Pressurized Fluidized Bed Gasifier was upgraded with new ball valves, refractory brick lining, higher capacity air compressor etc. In the recent run, the gasification operation was carried out from 20.07.2004 to 25.07.2004 with low and high ash coals used separately. The operation was smooth with the generation of quality fuel gas and trouble free ash extraction. Bed temperatures were uniform through out the gasification. The total duration of operation was for 96 hours out of which 28 hours with low ash coal and 18 hours with high ash coal. This run has raised the confidence level on sustained operation of plant.



State-of-the-art Centre of Excellence for Simulators for Power Plants established by BHEL.

- A computer program has been developed to calculate the reactance, winding losses and total leakage flux produced by the winding of large Power Transformers, for dimensioning of YOKE and WALL Shunts. Presently these shunts are designed based on past experience for a given rating and size of transformer. The developed programme was used for number of existing designs (200 MVA Generator Transformer and 315 MVA Auto Transformer) and the shunt dimensions were optimized, resulting in thinner shunts and reduction of overall weight of transformer.
- Selective Catalytic Reduction (SCR) System : The SCR Catalyst Monoliths developed by BHEL was tested at the Fuel Evaluation Test Facility (FETF). Test results showed more than 90% Nox reduction. The test showed very encouraging initial performance of BHEL in-house developed catalyst and system throughout of the 8 hours of the stabilized test operation period of the FETF. An action plan for establishing a SCR Demonstration Plant at the 210 MW unit of Raichur Power Plant has been initiated.

Major R&D/Technology Projects likely to be completed by BHEL by the end of the year 2004-05.

- Setting up an Expert Network for solving site issues/problems through the web for Power Sector Projects with one site at pilot scale.
- Development of a 8 MW demonstration impulse steam turbine.
- Scale up design, validation and basic Engineering for a 100 MW IGCC Demonstration Plant.
- Conceptual Design of a 765 kV, 500 MVA, single phase auto transformer.
- Development of 145 kV GCB with insulated Nozzle and spring operated Mechanism.
- Development of Twin wire Arc Spray Technique and Coatings for Erosion control of FBC Boiler Tubes.



Largest capacity (6MW, 1500 RPM, 6.6KV) Vertical motor produced by BHEL.

- Design development of a 60 MW (e) Bubbling Bed Fluidised Boiler.
- Design development of a 50 MW Air Cooled Generator.
- Development of 1550 kVA Modular Transformer for Broad Gauge AC EMU.
- Development of computer based controls for 3000 HP Diesel Electric Locomotives.

7.2.2 HMT Ltd.

HMT has established R&D centers in every manufacturing unit to meet the needs of research and development of different products, with a focus to progressively achieve self-reliance in product technology as well as retain the competitive edge in respect of features, aesthetics and price. R&D has been a focus area for the company in its endeavour to serve the customer better and to provide products matching to his productivity needs. R&D activities are concentrated in each subsidiary with particular reference to customer needs in product technology, quality, reliability and price competitiveness. Upgrading the existing products with additional features, design optimization and improvement in aesthetics are the major thrust areas. This approach has resulted in many new products and also upgradation of existing products. Highlights of R&D activities carried out / planned in the different product areas of HMT's domain are as below :

a) Tractors:

- Development of 52 HP 4902 Gen set engine with turbo-charge.
- Modification of existing products for better aesthetics and ergonomics.
- Development of higher HP range

tractors above 60 HP through foreign collaboration.

- Development of earth moving equipment suitable for higher HP range tractors.
- Development of 'Tranctor', a transport Tractor in collaboration with M/s TVL, UK.



Air-Conditioned Tractor, "HMT 6522 Chandi" by HMT Ltd.

b) Machine Tools :

- 6 Axes Turning Centre – MCELL 200
- CNC Turn Mill Centre – Preciturn.
- CNC Turning Center – Stallion 100S
- Die & Mould Machining Center – VMC 4H
- Horizontal Maching Centre – HSM 400
- CNC Grinding Center GC 175
- CNC Surface Grinder SSG1
- Plastic Injection Moulding Machine P1180
- 4 Spindle Vertical Drilling Machine
- CNC Worm Grinding Machine TH 160/1000
- CNC Rotary Surface Grinder RSG 500.

c) Watches

- 34 new models of watches were released to the market.

d) Bearings

R&D activities remained centered around the development of new Bearings to meet the specific needs of the following organizations, apart from improvement in the existing range.

- M/s Heavy Vehicle Factory, Jabalpur, for defence application.
- M/s Escorts, Faridabad, for farm tool application
- M/s Tata Motors, Pune for automotive application
- M/s CVRDE, Chennai, for combat aircraft application.

7.2.3 Instrumentation LTD.,Kota (ILK)

The company has developed technical competence through enhanced R&D activities and development of engineering capabilities towards further improvement in products and also to reduce dependence on imported technology. IL developed special solenoid valves and flow nozzles, which have been widely used by Narora, RAPP & MAPP units of Nuclear Power Corporation.

The Palakkad Unit has developed Bellow Sealed Valve, which is an important control element for Nuclear Power application. The unit received import substitution award from DGTD.

7.2.4 Andrew Yule & Co. Ltd. (AYCL)

The main focus of inhouse R&D facilities in the company is to provide continuous upgradation of existing products to match the domestic market as well as to grab the opportunity in export market. Their task includes new product development, product extension and revalidation of the Test Certificate for the upper ranges to be followed up by proto type development and

commercialization. The company's R&D set up has been recognized by the Department of Scientific and Industrial Research. Some of the R&D activities carried out by the Company's different Units are as follows :

- a) Switchgear Unit has developed 12 KV, 40 KA Indoor Vacuum Circuit Breaker panel, 6.6 KV, 400A Vacuum Contactor Panel, 33 KV 1600 A Porcelien Clad Vacuum Circuit Breaker for entering into new market.
- b) Brentford Unit has developed Dry Type 315 KVA and 11 KV/33V Dry Type Transformer.
- c) Togami Unit has developed;
 - (i) 12 KV Latch Type Sectionalizer Switch with B 21 V1.
 - (ii) 12 KV 400A 20KA Vacuum Cap Switch with CGL VI as well as 100A and 150A Single Pole D.C. Moulded Case Circuit Breakers.
 - (iii) Development process is in progress for Oil Field Auto Reclosure with Micro Processor based Control panel for export to Bangladesh.
- (d) Transformer & Switchgear Unit has developed Ring Main Unit with SF6 and also 12 KV 630A, 25KA, 95KV Vacuum Circuit Breakers.

7.2.5 Hindustan Newspaper Ltd. (HNL)

Some of the areas where research work was undertaken by HNL are as under –

- a) use of unconventional raw materials for the manufacture of writing and printing paper.
- b) optimisation of de-inked pulp content in newsprint furnishes.
- c) effect of seasoning on strength and optical properties of reeds.

7.2.6 Rajasthan Electronics & Instruments Ltd. (REIL)

Primary concentration of R&D in the company is in the area of Agro-Dairy product/applications, Solar Photovoltaic modules and systems, industrial Electronics and Information Technology. Besides providing the technical support to various other departments of the Company, R&D division is also playing an important role in diversification of Company's product line.

The main areas of development activities are;

(a) Agro-Dairy Product/applications

- (i) AUTOEMT (motorized version) of Electronic Milk Tester has been developed and it is in the process of commercialisation. Trial production of 5 Nos. of the units has been undertaken for field trial at the milk co-operative societies.
- (ii) Smart Card based "DP MCS" has been developed and the same is in the trial production stage.
- (iii) The Digital Indicator has been upgraded as per the latest specifications of National Dairy Development Board (NDDB) and a Digital Indicator, with moving display has been developed.
- (iv) USB (Universal Serial Bus) port for EMT and various other products of the Company has been developed. USB port enables communication with several devices simultaneously.
- (v) The measure PCB of new version has been developed and the same has been incorporated in the AUTOEMT.

(b) Solar Photo Voltaics

- (i) In the process of development of new application of solar photo voltaic technology DOT charge controller of 250 W has been developed.
- (ii) The 1 KVA inverter for Solar Power Plant applications has been developed and the same is in operation at the Collectorate in Bhilwara (Rajasthan).
- (iii) Solar Generator of varying capacity has also been developed for consumer applications.

(c) Industrial Electronics

- (vi) Grant-in-Aid was received from MNES for development of Smart Pre-paid Meter for Solar Power Stations. The product has been developed and box die development is under process. Prototype meter reader has also been developed.
 - (vii) The company is developing pre-paid Electronic Energy Meter and smart card based Electronic Energy Meter as per the requirement of various state electricity boards.
 - (viii) Smart Attendance System has been commercialized successfully and exploration of its applications in newer areas is under process.
 - (ix) In RFID (Radio Frequency Identification Tags) project, the reader for identification of various tags has been developed. The product is ready for commercialization. The market potential for the product is being explored.
- (d) Information Technology Sector**
- (x) Linux based "Society Accounting & Management System" has been developed and field trial is in process.



SPV Community Television System installed by REIL in a remote village of Rajasthan.

- (xi) Software and Hardware for Smart Attendance Card System & Smart Energy Meter has been developed.

7.2.7 Scooters India Ltd.

- (i) Developed LPG operated Vikram 600G and started production.
- (ii) Development of 3-Seater Auto rickshaw version of electric three wheeler vehicle is in progress.
- (iii) All the existing model of SIL three wheelers are under upgradation to meet Central Motor Vehicle Regulation (CMVR) norms w.e.f. April, 2005.

7.3 NATIONAL LEVEL INSTITUTES FOR R&D IN NEW TECHNOLOGIES

- 7.3.1 In the past, five national level institutes have been set up with UNIDO/UNDP assistance for research in new technologies. These are; Fluid Control Research Institute (FCRI), Pollution Control Research Institute (PCRI), Centre for Electric Transportation Technology (CET), Ceramic Technological Institute (CII), and Welding Research Institute (WRI). Out of these only FCRI is under the direct administrative control of the Department while the remaining four are under the control of the BHEL.

7.3.2 Fluid Control Research Institute, Palghat

The Fluid Control Research Institute (FCRI), set up as an independent national centre for developing a frame of reference/standardisation in flow control/metering with precision, provides infrastructural facilities for applied engineering research projects in the area of fluid flow. It also acts as a national certifying authority for testing and calibration for all kinds of flow products. It has helped many organisations in obtaining ISO 9000 certification by calibrating their reference/master instruments with traceability to national standards and by imparting training as laid down in the ISO 9000 system requirements. It has set up a 20 bar HP air flow calibration and testing facility to enable the petroleum companies to have the tests carried out in India.

7.3.3 Ceramic Technological Institute, Bangalore

The developmental objective of this project is to support the Indian Ceramic Industry in modernising its technology and to develop new products of advanced ceramics. Many ceramic products required for the industry have been developed and a few of them commercialised. Test and evaluation services in this field are being provided to the industry by this Institute.

7.3.4 Centre for Electric Transportation, Bhopal

The Project for development of Electric Transportation Technology was approved by the Govt. of India and UNDP in July 1988.

The capabilities in the Centre have been developed to analyse and test all aspects of electrically powered vehicle designs to improve their performance, reliability and efficiency. The Centre is also able to conduct both computer and physical simulations of the vehicles' performance under all different operating conditions.

7.3.5 Pollution Control Research Institute, Hardwar

Pollution Control Research Institute (PCRI) was set up by Department of Heavy Industry with Bharat Heavy Electricals Ltd. (BHEL) as the lead agency under United Nations Development Programme (UNDP). FCRI has evolved industrial pollution control technologies with respect to air, water, house and solid wastes to avoid unintended side effects of economic growth. The Institute provides services to various industries and Thermal Power Stations on a regular basis.

7.3.6 Welding Research Institute (WRI) Tiruchirapalli

Welding Research Institute (WRI), the only one of its kind in the country, is equipped with state of art welding research facilities like electron and laser beam, flashbutt, friction and plasma welding in addition to facilities for conventional arc welding. Further, it has advanced testing facilities for fatigue testing, Residual stress measurement, Residual life estimation etc. The institute has been providing services to ISRO, Indian Railways, Defence and industry in Public and Private sector.

8

Welfare of Minorities

- 8.1 Public Sector undertakings under this Department are highly conscious of their obligations to promote the welfare of minorities in the light of Government's directives on the subject. Instructions issued by the Government in respect of reservation in appointment/promotions for SC/ST/OBC, handicapped persons and minority communities have been generally followed by the PSEs under this Department.
- 8.2 There is an SC/ST Cell and a Liaison Officer of the rank of Director responsible for monitoring implementation of reservation Policy of Government of India in the PSEs under the administrative control of this Department. This Cell is also responsible
- 8.3 for conducting annual inspections of reservation rosters of the PSEs. The work force in the PSEs consists of a large number of persons from different minority communities. Their integration into the mainstream workforce is complete in all PSEs and there is no discrimination on account of their creed or religious beliefs. In terms of facilities like residential accommodation etc. all employees are treated at par.
- 8.3 Every year Quami Ekta/Sadbhavna Diwas is organized where people from all sections of the society including women and children participate to stimulate the spirit of oneness, national integration and harmony.

9

Empowerment / Welfare of Women

- 9.1 This Department and the PSEs under its administrative control are conscious of the principles of gender mainstreaming and gender justice enshrined in the Constitution of India.
- 9.2 In compliance with the Supreme Court judgement for the reservation and enforcement of the right to gender equality of working women, a Complaints Committee is in place in this Department for redressal of complaints relating to sexual harassment of women. The guidelines laid down by Supreme Court in this regard have been brought to the notice of all employees working in this Department. Moreover, the Department of Public Enterprises vide their O.M. dated 29th May, 1998, has issued detailed guidelines and norms to Chief Executives of PSEs for prevention of sexual harassment of working women.
- 9.3 It is a constant endeavour of the Department to see that there is no discrimination against women on any account. Women employees are encouraged to freely participate in all activities in the Department like meetings, seminars, training etc. to help ensure their fullest participation in all work and activities.
- 9.4 In terms of Ministry of Finance Department of Economic affairs instructions, a Gender Budgeting Cell has been constituted in the Department to address issues pertaining to gender budgeting.

10

Vigilance

- 10.1 Vigilance activities in an essential requirement of any organization. The Department has a Chief Vigilance Officer of the rank of Joint Secretary to look into complaints against the employees of the Department as well as Board Level Officers of the Public Sector Enterprises and Organizations under its administrative control. He is assisted by a Director, one Under Secretary and a Vigilance Section.
- 10.2 The main areas of work of Vigilance Section are:
- Dealing with complaints against Board level appointees of PSEs as well as the officers of the Department of Heavy Industry;
 - Issue of vigilance clearance in respect of Board level appointees in PSEs and all other appointments based on PSEs recommendation requiring ACC approval;
 - Liaisoning with CVC, CBI and CVOs of PSEs under DHI to streamline flow of information in respect of vigilance matters;
- Tendering advice on issues of financial irregularity and procedural irregularity;
 - Vetting charge sheet in respect of charges against Board level appointees;
- 10.3 The vigilance organization also lays emphasis on preventive vigilance. However punitive measures are taken in appropriate cases and followed up wherever required.
- 10.4 Vigilance Section is responsible for maintaining Annual Confidential Reports of officers and staff of the Department and also of the Board level appointees & Central Vigilance Officers (CVOs) of PSEs under the administrative control of this Department.
- 10.5 Vigilance Section also monitors submission of Annual Property Returns by officers and staff of the Department of Heavy Industry as well as the Chief Executives of PSEs under the Department of Heavy Industry.

11

Progressive Use of Hindi

11.1 The Official Language Section in the Department takes up measures to promote use of Hindi in the Department. The efforts to promote the use of Hindi in official works of the Department, continued during the period under review. The Official Language Implementation Committee held its periodical meetings regularly to review the progress made in use of Hindi and suggested ways to remove the impediments in implementation of provisions of the Official Language Act, 1963 and the rules made there-under.

11.2 During the period under review, the Parliamentary Committee on Official Language inspected the offices of Bharat Heavy Electricals Limited, New Delhi; Hindustan Photo Films Manufacturing Co. Limited, Ootacamund and Hindustan Paper Corporation Limited, Kolkata and has expressed satisfaction with the progress of

Hindi. The Officers of the Department carried out inspections of some enterprises during the year to monitor progress made in the use of Hindi and the officers of these enterprises so visited were apprised of the Official Language Policy of the Government of India.

11.3 All the Notifications, Resolutions, Notes and Circulars, Parliament Questions, Annual Reports, (Performance Budget) General Orders and papers laid on the Tables of both Houses of the Parliament were issued both in Hindi and in English. All the letters received in Hindi were responded to in Hindi. In order to promote the use of Hindi and to increase correspondence in Hindi, a “**Hindi Pakhwara**” was organized from 16th September,2004 to 30th September,2004 during which several competitions including noting/drafting, translation from

English to Hindi and vice-versa, Hindi typing on Computer etc. were conducted. Officers of the Department participated in these activities with keen interest. Cash awards were given to winning candidates. A workshop was also organized for officers/employees of the Department to impart training in noting/drafting in Hindi as well as filling up the Proforma for quarterly report for progressive use of Hindi correctly. They were also apprised of the Official Language Act, 1963.

11.4 Following important steps were taken to promote progressive use of Hindi in official work during the year:-

(i) Under rule 10(4) of the Official Language (Use of Official purpose of the Union) Rule 1976, vide which the Central Government is required to notify the offices where more than 80%

staff have acquired working knowledge of Hindi, the Department has accordingly identified and notified a unit of Bharat Wagon and Engineering Co. Limited, Muzaffarpur (Bihar) and Zonal Office, New Delhi and Bharat Bhari Udyog Nigam Limited, Kolkata.

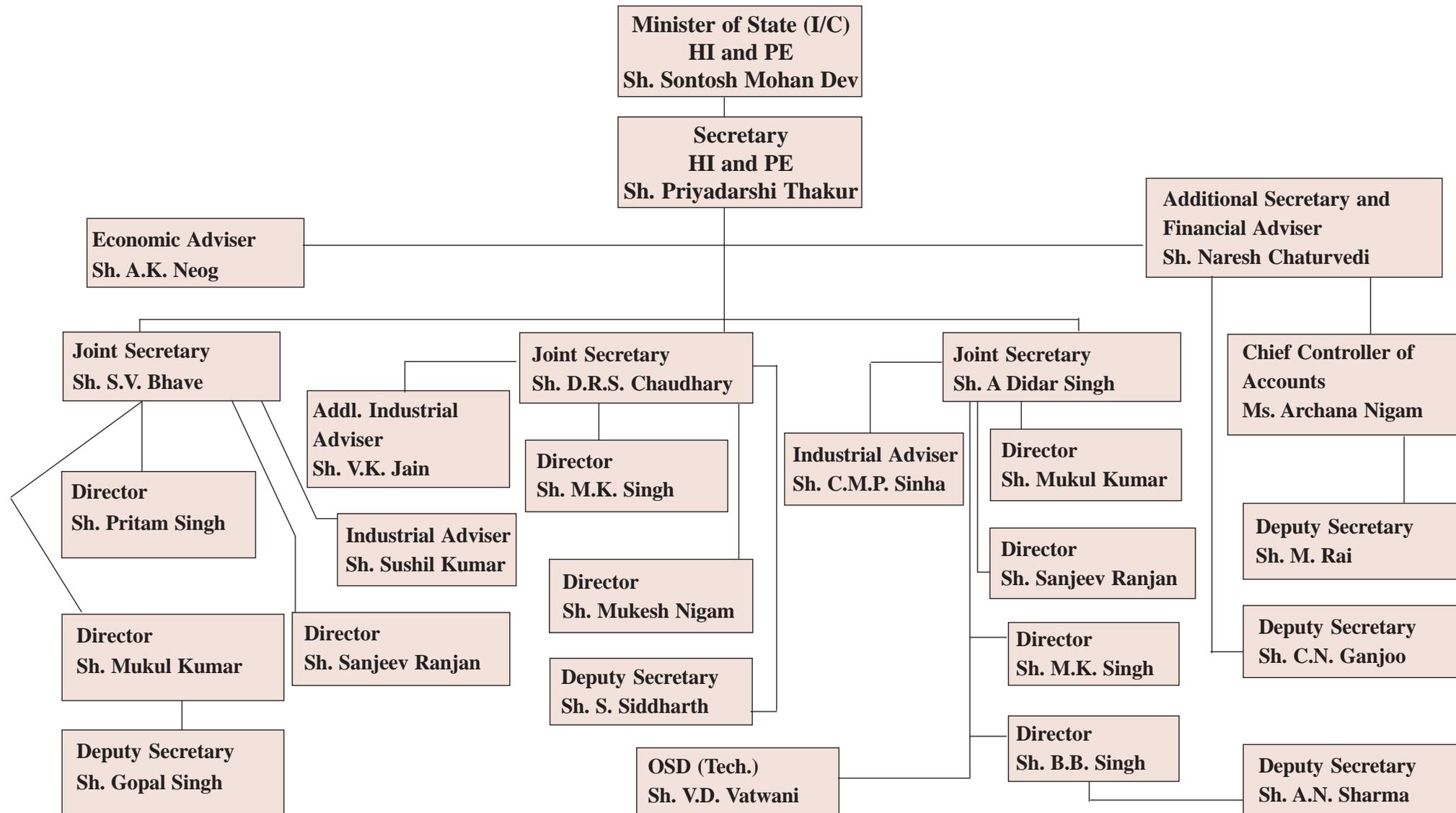
(ii) Implementation of programme of learning Hindi through '**AAJ KA SHABDA**'.

11.5 Public Sector Enterprises, under the administrative control of this Department also continued to make vigorous efforts to implement the Official Language Act and its provisions. Various Seminars, Competitions and Workshops were organized in these PSEs to propagate use of Hindi. "**HINDI PAKHWARA**"/ "**HINDI WEEKS**" were celebrated in these PSEs with great zeal.

ANNEXURE - I

ORGANOGRAM OF DEPARTMENT OF HEAVY INDUSTRY

As on 1.2.2005



General Information about the Public Sector Enterprises under the Department of Heavy Industry

			(Rs. in crore)
Sl.No.	Name of PSE and location of Registered Office	Year of setting up of PSE	Gross Block as on 31.3.2004
1	Andrew Yule & Co. Ltd. (AYCL), Kolkata	1979	194.62
2	BBJ Construction Co. Ltd (BBJ), Kolkata	1987	7.14
3	Bharat Heavy Electricals Ltd. (BHEL), New Delhi	1956	3568.00
4	Bharat Heavy Plates & Vessels Ltd. (BHPV), Visakhapatnam	1966	78.05
5	Bharat Pumps & Compressors Ltd. (BPCL), Allahabad	1970	38.24
6	Bharat Wagon Engineering Company Ltd. (BWEL), Patna	1978	16.71
7	Braithwaite & Co.Ltd. (BCL), Kolkata	1976	40.84
8	Bridge and Roof Co. Ltd. (B&R), Kolkata	1972	99.83
9	Burn Standard Co. Ltd. (BSCL), Kolkata	1976	134.56
10	Cement Corpn. of India Ltd. (CCI), New Delhi	1965	643.33
11	Engineering Projects (India) Ltd. (EPI), New Delhi	1970	16.64
12	Heavy Engineering Corpn. Ltd. (HEC), Ranchi	1958	313.19
13	Hindustan Cables Ltd. (HCL), Kolkata	1952	525.42
14	Hindustan Newsprint Ltd. (HNL), Kottayam	1983	349.94
15	Hindustan Paper Corporation Ltd. (HPC), Kolkata	1970	780.11

			(Rs. in crore)
Sl.No.	Name of PSE and location of Registered Office	Year of setting up of PSE	Gross Block as on 31.3.2004
16	Hindustan Photo Films Mfg. Co Ltd. (HPF), Ooty	1960	720.63
17	Hindustan Salts Limited (HSL), Jaipur	1959	4.22
18	HMT (Bearing) Ltd., Hyderabad	1981	28.78
19	HMT (Chinar Watches) Ltd., Jammu	2000	10.46
20	HMT Ltd (Holdg Company), Bangalore	1953	113.49
21	HMT (Machine Tools) Ltd., Bangalore	2000	211.72
22	HMT (Watches) Ltd., Bangalore	2000	188.02
23	HMT (International) Ltd., Bangalore	1974	22.45
24	Hoogly Printing Co. Ltd., Kolkata	1979	1.66
25	Instrumentation Ltd., (IL), Kota	1964	66.52
26	Nepa Ltd. (NEPA), Nepanagar	1958	114.44
27	Praga Tools Ltd. (PTL), Secunderabad	1959	36.54
28	Rajasthan Electronics & Instruments Ltd. (REIL) Jaipur	1981	8.27
29	Richardson & Cruddas Ltd. (R&C), Mumbai	1972	34.41
30	Sambhar Salts Ltd. (SSL), Jaipur	1964	6.74
31	Scooters India Ltd. (SIL), Lucknow	1972	50.00
32	Triveni Structural Ltd. (TSL), Allahabad	1965	20.14

			(Rs. in crore)
Sl.No.	Name of PSE and location of Registered Office	Year of setting up of PSE	Gross Block as on 31.3.2004
33	Tunghabhadra Steel Products Ltd. (TSPL), Hospet	1967	21.71
34	Tyre Corpn. of India Ltd. (TCIL), Kolkata	1984	123.50
TOTAL			8590.32

- Note : (i) 9 PSEs namely, BPME, WIL, BBVL, RBL, TAFCO, CCIL, NBCIL, MAMC & RIC have been closed and 5 PSEs (BLC, NIDC, NPPC, BOGL & NIL) are not in operation.
- (ii) Apart from above 34 PSEs, there are two non-manufacturing holding companies namely BBUNL & BYNL.

Employment Position including SC, ST & OBC as on
31.3.2004 in Public Sector Enterprises under
the Department of Heavy Industry

S. No.	Name of PSE	TOTAL NO. OF EMPLOYEES				No. of Employees		
		Executives	Supervisors	Workmen/ Others	Total	SC	ST	OBC
1	2	3	4	5	6	7	8	9
1	Andrew Yule	227	117	15841	16185	962	4548	8066
2	B&R	458	532	411	1401	169	5	36
3	BBJ	40	9	44	93	7	1	–
4	BHEL	9831	7225	26896	43952	7724	1640	2748
5	BHPV	393	181	1150	1724	301	118	303
6	BPCL	227	51	979	1257	204	2	402
7	BRAITHWAITE	48	29	495	572	56	1	–
8	BSCL	124	164	1348	1636	169	16	287
9	BWEL	45	44	900	989	88	2	303
10	CCI	188	206	1213	1607	198	129	201
11	EPIL	361	91	17	469	77	13	22
12	HCL	467	474	2271	3212	849	235	132
13	HEC	643	607	2487	3737	310	667	819
14	HMT (Bearings)	56	54	273	383	46	–	147
15	HMT (Chinar Watches)	19	106	535	660	53	4	–
16	HMT (Holding Co.)	297	176	2095	2568	559	108	47
17	HMT (I)	43	27	11	81	12	3	1
18	HMT (MT)	1035	540	3139	4714	822	217	789
19	HMT (Watches)	206	241	1779	2226	395	99	203
20	HNL	191	85	849	1125	78	4	209
21	Hoogly Printing	8	8	50	66	1	–	–

S. No.	Name of PSE	TOTAL NO. OF EMPLOYEES				No. of Employees		
		Executives	Supervisors	Workmen/ Others	Total	SC	ST	OBC
1	2	3	4	5	6	7	8	9
22	HPC	604	217	2137	2958	275	234	49
23	HPF	95	70	929	1094	179	56	509
24	HSL	11	34	98	143	21	7	31
25	IL	242	735	820	1797	294	83	282
26	NEPA	129	–	1354	1483	108	23	79
27	PTL	94	11	455	560	98	13	123
28	R&C	27	12	36	75	6	–	10
29	REIL	50	42	99	191	37	4	36
30	SIL	239	81	1491	1811	308	2	474
31	SSL	8	28	109	145	39	10	36
32	TCIL	35	44	275	354	15	3	–
33	TSL	84	63	271	418	54	–	138
34	TSP	55	34	329	418	86	9	108
		16580	12338	71186	100104	14600	8256	16590

- Note: (i) 9 PSEs namely; BPME, WIL, BBVL, RBL, TAFCO CCIL NBCIL, RIC and MAMC have been closed and 5 PSEs (BLC,NIDC,NPPC,BOGL&NIL)) are not in operation.
- (ii) Apart from above 34 Operating PSEs, there are two non-manufacturing holding companies namely BBUNL & BYNL.

Statement showing Production Performance of Public Sector Enterprises under the Department of Heavy Industry

(Rs. in crore)						
S.No.	Name of PSE	2001-2002	2002-2003	2003-2004	2004-2005 (Anticipated)	2005-2006 (Target)
1	2	3	4	5	6	7
1	AY&CO	112.45	106.55	96.62	109.55	95.07
2	B&R	344.21	364.24	403.75	455.00	475.00
3	BBJ	36.47	46.60	26.58	38.00	42.00
4	BHEL	7287.00	7482.00	8662.00	9450.00	10500.00
5	BHPV	223.17	177.55	47.39	87.00	87.00
6	BPCL	66.42	66.00	47.26	62.00	85.00
7	BRAITHWAITE	75.20	75.07	66.37	115.91	145.25
8	BSCL	118.79	208.35	176.92	210.07	273.44
9	BWEL	74.54	40.47	12.55	51.43	106.00
10	CCI	131.45	122.00	132.73	203.48	234.32
11	EPI	390.53	358.71	462.69	562.18	612.57
12	HCL	579.08	403.46	107.82	10.00	10.00
13	HEC	162.10	141.82	151.34	185.00	284.36
14	HMT (B)	41.69	18.41	23.60	30.00	32.00
15	HMT (Chinar Watches)	2.11	6.15	1.97	2.50	3.50
16	HMT (Holding Co.)	217.68	141.45	129.35	235.38	328.45
17	HMT (I)	58.69	43.92	32.90	37.00	70.30
18	HMT (MT)	227.76	197.07	177.95	265.00	300.00
19	HMT (Watch)	79.06	44.49	25.64	40.00	62.50
20	HNL	242.24	204.05	250.99	270.51	274.97
21	Hooghly Printing	7.11	11.64	8.39	10.00	12.00
22	HPC	521.73	565.08	581.91	585.23	610.52

		(Rs. in crore)				
S.No.	Name of PSE	2001-2002	2002-2003	2003-2004	2004-2005 (Anticipated)	2005-2006 (Target)
1	2	3	4	5	6	7
23	HPF	42.40	30.32	34.76	22.68	18.21
24	HSL	5.52	6.19	5.63	8.28	10.45
25	IL	107.85	131.53	153.25	170.00	200.00
26	NEPA	99.97	32.04	39.03	50.46	59.40
27	PTL	3.98	6.29	8.12	22.58	25.50
28	R&C	53.69	47.47	89.58	21.56	26.87
29	REIL	35.45	44.00	42.13	41.60	48.00
30	SIL	124.65	134.50	148.62	138.66	152.43
31	SSL	6.09	6.22	5.25	7.59	8.80
32	TCIL	61.36	128.22	144.32	101.71	152.99
33	TSL	24.58	5.16	1.22	1.50	1.75
34	TSP	15.03	10.84	7.47	10.00	15.00
TOTAL		11580.05	11408.27	12305.84	13611.86	15363.65

Note: (i) 9 PSEs namely; BPME, WIL, BBVL, RBL, TAFCO, CCIL, NBCIL, RIC MAMC have been closed and 5 PSEs (BLC, NIDC, NPPC, BOGL&NIL) are not in operation.
(ii) Apart from above 34 operating PSEs, there are two non-manufacturing holding companies namely BBUNL & BYNL.

Statement showing Profit(+)/Loss (–) (before tax)
of Public Sector Enterprises under the
Department of Heavy Industry

(Rs. in crore)						
S. No.	Name of PSE	2001-2002	2002-2003	2003-2004	2004-2005 (Anticipated)	2005-2006 (Target)
1	2	3	4	5	6	7
(A) PROFIT MAKING PSEs						
1	B&R	3.61	3.85	3.07	-12.00	-10.00
2	BHEL	663.00	803.00	1015.00	1089.00	1247.00
3	EPI	9.44	3.01	29.66	10.00	12.00
4	HMT(I)	0.54	0.34	0.13	0.18	1.06
5	HNL	6.45	-7.55	8.22	10.57	10.94
6	Hoogly Printing	0.41	1.72	1.16	1.20	2.10
7	HPC	63.75	40.60	59.69	50.71	56.13
8	REIL	0.60	3.55	2.88	1.10	3.30
9	SIL	2.26	2.65	3.16	2.10	2.40
Sub-total for (A) Profit making Cos.		750.06	851.17	1122.97	1152.86	1324.93
(B) LOSS MAKING PSEs						
10	AY&CO	-39.42	-60.54	-54.63	-57.86	-52.47
11	BBJ	0.62	-4.39	-24.30	-7.90	-7.53
12	BHPV	1.72	-187.63	-158.81	-35.00	-35.00
13	BPCL	-12.46	-12.92	-24.75	-20.00	-18.00
14	BRAITHWAITE	-33.35	-29.21	-23.56	-18.41	-13.36
15	BSCL	-78.35	-73.74	-110.65	-97.82	-106.16
16	BWEL	-26.87	-10.58	-24.05	-17.22	-12.30
17	CCI	-215.33	-215.36	-80.95	-214.05	-210.78
18	HCL	-236.08	-256.31	-307.42	-241.68	-288.19
19	HEC	-173.78	-173.82	-132.68	-277.51	-169.97

(Rs. in crore)						
S. No.	Name of PSE	2001-2002	2002-2003	2003-2004	2004-2005 (Anticipated)	2005-2006 (Target)
1	2	3	4	5	6	7
20	HMT(B)	0.94	-15.03	-9.58	-8.56	-10.05
21	HMT (Chinar Watch)	-10.16	-6.31	-21.92	-24.58	-26.87
22	HMT (Hldg. Co.)	7.82	-34.01	-7.19	-11.99	-52.70
23	HMT (MT)	-70.65	-102.05	-119.08	-71.05	-49.53
24	HMT (Watch)	-106.00	-113.00	-135.00	-131.67	-32.72
25	HPF	-353.72	-385.39	-443.02	-491.53	-558.99
26	HSL	-1.91	-2.78	-2.41	-1.38	-0.34
27	ILK	-30.49	-29.18	-29.02	-19.85	-14.45
28	NEPA	-35.16	-50.89	-45.62	-49.93	-47.15
29	PTL	-35.06	-37.50	-16.04	-6.21	-0.60
30	R&C	-19.21	-28.19	-40.64	-40.00	-40.00
31	SSL	-3.02	-2.66	-3.11	-2.06	-1.99
32	TCIL	-67.41	-16.91	4.55	-52.95	-47.61
33	TSL	-12.23	-26.26	-27.00	-30.00	-30.00
34	TSP	-0.66	-2.63	-99.98	-20.00	-19.00
Sub-total (B) Loss making Cos.		-1550.42	-1877.29	-1935.86	-1916.47	-1819.87
GRAND TOTAL (A&B)		-800.36	-1026.12	-812.89	-763.61	-494.94

- Note: (i) 9 PSEs namely; BPME, WIL, BBVL, RBL, TAFCO, CCIL, NBCIL, RIC and MAMC have been closed and 5 PSEs (BLC, NIDC, NPPC, BOGL&NIL) are not in operation.
(ii) Apart from above 34 operating PSEs, there are two non-manufacturing holding companies namely BBUNL & BYNL.
(iii) Categorisation of the Company as profit making or loss making is done based on performance of 2003-04.

ANNEXURE - VI

STATEMENT SHOWING SALARY/WAGE BILL & SOCIAL OVERHEADS AS % OF TURNOVER OF PUBLIC SECTOR ENTERPRISES UNDER THE DEPARTMENT OF HEAVY INDUSTRY

Sl.No.	Name of PSE	Wages and salaries as % of Turnover					Social overheads as % of Turnover				
		2001-02	2002-03	2003-04	2004-05	2005-2006	2001-02	2002-03	2003-04	2004-05	2005-2006
					(Anticipated)	(Anticipated)				(Anticipated)	(Likely) (Anticipated)
1	2	3	4	5	6	7	8	9	10	11	12
1	AY&CO	47.58	54.85	46.70	31.48	21.40	6.60	5.92	5.50	5.40	5.30
2	B&R	10.64	11.49	8.70	8.35	8.21	0.78	0.81	1.57	0.44	0.44
3	BBJ	10.47	10.63	14.32	9.66	12.48	1.64	1.37	2.36	0.81	0.78
4	BHEL	19.83	20.11	18.93	18.15	17.49	3.14	2.52	2.86	2.65	2.38
5	BHPV	21.17	29.18	56.66	40.66	42.67	2.79	2.17	19.28	3.28	6.67
6	BPCL	32.68	42.27	44.57	31.70	34.57	3.78	4.42	5.50	8.45	9.50
7	BRAITHWAITE	52.64	31.70	20.26	8.17	7.68	2.78	1.50	0.88	0.70	0.60
8	BSCL	42.77	20.54	15.43	11.16	9.99	4.68	2.08	2.18	1.95	1.69
9	BWEL	65.53	60.34	195.14	18.22	16.02	0.95	1.08	2.87	0.61	0.46
10	CCI	42.54	32.07	19.80	11.23	8.51	12.64	11.61	8.79	3.69	2.35
11	EPIL	4.41	5.27	4.38	3.52	3.63	0.91	1.00	1.25	0.61	0.61
12	HCL	10.33	15.28	49.12	31.00	9.26	1.18	1.62	8.61	4.49	1.36
13	HEC	46.21	31.02	34.05	26.52	19.36	7.30	4.56	5.33	4.39	0.40
14	HMT(Chinar)	511.00	1072.00	928.00	350.00	118.00	69.00	152.00	167.00	60.00	20.00
15	HMT(B)	25.72	48.81	26.19	26.13	26.80	3.69	5.21	2.92	3.00	3.00
16	HMT(Hldg)	21.13	32.43	37.70	20.47	16.74	2.58	3.48	4.18	2.11	1.70
17	HMT(I)	3.23	4.66	5.71	4.69	3.48	0.70	0.98	1.47	0.64	0.47
18	HMT(MT)	39.00	43.00	54.00	35.00	36.00	4.00	3.00	4.00	3.00	3.00
19	HMT(Watches)	86.00	139.00	132.00	39.00	26.00	6.00	12.00	16.00	4.00	3.00
20	HNL	9.74	8.71	8.89	11.76	11.76	5.47	4.75	3.66	3.20	3.20
21	Hoogly Ptg.	21.78	13.48	18.01	16.85	14.12	1.31	1.02	1.20	1.15	1.06
22	HPC	10.14	9.47	9.68	12.78	12.78	4.99	4.45	4.58	4.09	4.09
23	HPF	70.74	49.07	45.18	60.67	69.44	2.39	2.74	2.39	2.98	3.61
24	HSL	64.73	63.44	60.44	38.05	33.19	4.77	3.67	3.56	2.46	2.07
25	IL	36.87	28.90	21.92	20.59	17.00	2.05	1.70	1.29	1.18	1.00
26	NEPA	30.13	52.28	53.70	29.38	24.17	3.30	5.35	1.80	1.35	1.09
27	PTL	209.00	109.00	99.00	49.00	29.00	56.00	42.00	10.00	10.00	8.00
28	R&C	11.43	27.75	20.96	4.79	4.80	1.13	0.94	1.30	0.62	0.60
29	REIL	11.23	8.08	7.70	7.52	7.69	2.54	1.75	1.43	1.62	1.75
30	SIL	18.65	16.70	15.77	18.36	17.96	4.63	4.74	5.63	5.97	5.78
31	SSL	43.04	47.26	53.23	41.93	41.99	3.19	3.22	3.61	2.89	2.97
32	TCIL	31.70	14.47	7.73	23.34	16.22	4.26	5.00	3.02	5.18	3.67
33	TSL	41.42	219.68	631.37	340.00	200.00	7.00	3.71	64.70	85.00	50.00
34	TSP	21.47	69.60	35.20	8.02	50.00	1.56	3.91	29.52	12.85	25.00

Note (i) 9 PSEs namely; BPME, WIL, BBVL, RBL, TAFCO CCIL NBCIL, RIC and MAMC have been closed and 5 PSEs (BLC,NIDC ,NPPC,BOGL&NIL) are not in operation.
(ii) Apart from above 34 Operating PSEs, there are two non-manufacturing holding companies namely BBUNL & BYNL.

Statement Showing Order Book Position of Public Sector Enterprises under the Department of Heavy Industry

(Rs. in crore)

S.No.	Name of PSE	As on 1.10.2000	As on 1.10.2001	As on 1.10.2002	As on 1.10.2003	As on 1.10.2004
1	2	3	4	5	6	7
1	AY&CO	130.78	140.05	131.66	103.54	86.05
2	B&R	325.40	375.77	385.16	636.40	581.90
3	BBJ	57.79	40.09	51.99	45.24	46.56
4	BHEL	10526.00	10029.00	12573.00	15800.00	23650.00
5	BHPV	309.20	183.05	130.41	115.50	186.90
6	BPCL	66.10	73.91	38.83	43.50	48.70
7	Braithwaite	156.20	19.98	106.85	130.59	144.11
8	BSCL	123.20	86.83	111.02	174.74	152.80
9	BWEL	108.56	33.24	32.68	115.48	101.99
10	CCI	12.29	110.41	4.17	7.13	-
11	EPIL	430.00	626.45	595.78	891.26	1459.96
12	HCL	185.46	243.49	351.63	164.00	138.25
13	HEC	150.93	150.32	99.63	192.90	314.45
14	HMT(Bearings)	2.25	2.28	2.15	2.15	2.19
15	HMT(Chinar watches)	NA	NA	NA	NA	NA
16	HMT(Hldg)	NA	NA	NA	NA	NA
17	HMT(I)	38.30	42.53	53.15	12.11	21.68
18	HMT(MT)	133.00	145.08	99.19	111.23	166.65
19	HMT(Watches)	NA	NA	NA	NA	NA
20	HNL	-	-	-	-	-
21	Hoogly Ptg	0.30	0.20	2.60	1.10	1.50
22	HPC	24.89	24.10	4.15	15.21	27.46
23	HPF	-	0.00	5.10	2.60	2.85
24	HSL	2.21	0.39	3.22	6.12	7.03
25	IL	36.03	34.85	53.82	88.50	89.72
26	NEPA	27.80	6.59	5.94	4.99	6.33
27	PTL	12.74	8.12	5.30	4.47	5.86
28	R&C	96.80	79.71	158.15	69.20	32.70
29	REIL	6.04	19.43	16.94	27.09	18.87
30	SIL	-	-	-	-	-
31	SSL	1.20	2.10	1.03	2.07	7.84
32	TCIL	9.00	5.00	4.80	5.00	1.00
33	TSL	46.70	38.58	37.72	36.00	22.40
34	TSP	55.00	25.95	32.65	24.40	15.70
TOTAL		13074.17	12547.50	15098.72	18832.52	27341.45

- Note: (i) 9 PSEs namely; BPME, WIL, BBVL, RBL, TAFCO CCIL NBCIL, RIC and MAMC have been closed and 5 PSEs (BLC,NIDC,NPPC,BOGL&NIL) are not in operation.
(ii) Apart from above 34 Operating PSEs, there are two non-manufacturing holding companies namely BBUNL & BYNL.

ANNEXURE - VIII

EXPORT PERFORMANCE OF PUBLIC SECTOR ENTERPRISES UNDER THE DEPARTMENT OF HEAVY INDUSTRY

Sl No.	PSEs	2000-2001			2001-2002			2002-2003			2003-2004			2004-2005 (Anticipated)		
		Physical	Deemed	Total	Physical	Deemed	Total	Physical	Deemed	Total	Physical	Deemed	Total	Physical	Deemed	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	AY & CO	8.86	12.00	20.86	8.09	0.00	8.09	6.51	2.10	8.61	0.53	1.60	2.13	5.00	1.00	6.00
2	B&R	0.88	0.00	0.88	8.47	0.00	8.47	8.97	0.00	8.97	0.69	0.00	0.69	8.00	0.00	8.00
3	BBJ	0.00	2.26	2.26	0.00	1.43	1.43	0.00	0.63	0.63	0.00	0.00	0.00	0.00	0.00	0.00
4	BHEL	247.00	1426.00	1673.00	987.00	1524.00	2511.00	637.00	1529.00	2166.00	596.00	1454.00	2050.00	1135.00	1238.00	2373.00
5	BHPV	2.00	2.92	4.92	0.00	6.37	6.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	BPCL	0.00	0.01	0.01	0.00	0.00	0.00	0.00	4.63	4.63	0.00	5.27	5.27	0.00	9.57	9.57
7	BSCL	2.80	0.00	2.80	4.89	0.00	4.89	1.48	13.17	14.65	2.53	4.90	7.43	6.95	0.00	6.95
8	BWT	7.84	0.00	7.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.66	0.00	5.66
9	HMT (B)	0.11	0.00	0.11	0.15	0.00	0.15	0.07	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00
10	HMT (I)	39.18	0.00	39.18	49.68	0.00	49.68	34.73	0.00	34.73	29.94	0.00	29.94	45.00	0.00	45.00
11	HPC	3.39	14.58	17.97	0.00	25.17	25.17	0.00	10.32	10.32	0.00	3.12	3.12	0.00	39.00	39.00
12	HPF	0.36	0.00	0.36	0.40	0.00	0.40	0.59	0.00	0.59	0.23	0.00	0.23	0.50	0.00	0.50
13	HSL	0.81	0.00	0.81	0.92	0.00	0.92	0.65	0.00	0.65	0.21	0.00	0.21	1.40	0.00	1.40
14	IL	0.80	0.00	0.80	0.25	1.34	1.59	0.51	1.89	2.40	0.26	3.85	4.11	1.50	4.50	6.00
15	PTL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.08	0.77	0.85	0.71	0.37	1.08
16	R&C	0.34	0.99	1.33	0.24	0.30	0.54	0.71	0.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00
17	REIL	0.25	0.00	0.25	0.08	0.00	0.08	0.09	0.00	0.09	0.17	0.14	0.31	1.25	0.25	1.50
18	SIL	1.29	0.00	1.29	0.31	0.00	0.31	0.94	0.00	0.94	1.06	0.00	1.06	1.20	0.00	1.20
19	SSL	0.00	0.00	0.00	0.10	0.00	0.10	0.10	0.00	0.10	0.10	0.00	0.10	0.17	0.00	0.17
20	TSPL	2.58	7.03	9.61	1.69	1.86	3.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	318.49	1465.79	1784.28	1062.27	1560.47	2622.74	692.35	1561.90	2254.25	631.80	1473.01	2104.81	1212.34	1292.69	2505.03

**Paid Up Capital, Networth and Accumulated Profit(+)/
Loss(-) as on 31.3.2004 of the PSEs
under the Department of Heavy Industry**

(Rs. in crore)

Sl.No.	Name of PSE	Paid up Capital		Networth	Accumulated Profit (+)/Loss (-)
		Government/ Holding PSE	Others		
1	AY & CO	146.99	3.93	-55.03	-191.64
2	B&R	13.98	—	43.80	29.82
3	BBJ	2.14	—	-28.59	-30.73
4	BHEL	165.76	79.00	5278.00	5051.00
5	BHPV	33.80	—	-353.88	-344.56
6	BPCL	53.53	—	-113.40	-158.12
7	BRAITHWAITE	106.37	—	-105.20	-203.57
8	BSCL	128.26	—	-476.92	-605.17
9	BWEL	10.10	—	-79.99	-75.80
10	CCI	429.85	—	-1504.64	-1933.92
11	EPIL	35.42	—	85.16	55.86
12	HCL	417.69	1.67	-954.64	-1430.96
13	HEC	431.73	—	-1341.75	-1821.96
14	HMT (Bearings)	8.99	0.24	-21.62	-16.21
15	HMT (Chinar Watches)	1.41	—	-85.75	-78.87
16	HMT (Holding Co.)	462.17	8.50	11.16	-411.29
17	HMT (I)	0.48	—	20.38	19.90
18	HMT (MT)	10.70	—	-565.59	-387.95
19	HMT (Watches)	5.49	—	-538.65	-413.19
20	HNL	82.54	—	186.89	108.89
21	HOOGLY PTG	1.03	—	2.19	0.26
22	HPC	700.38	—	622.68	-67.70
23	HPF	180.68	19.19	-2435.07	-2657.05
24	HSL	9.87	—	-8.29	-19.29
25	IL	78.30	—	-167.69	-224.51
26	NEPA	104.69	0.70	-158.09	-251.11
27	PTL	17.06	19.11	-245.79	-275.99
28	R&C	54.84	—	-111.68	-145.24
29	REIL	0.64	0.61	7.59	6.34
30	SIL	42.99	—	53.65	10.81
31	SSL	1.00	—	-12.93	-15.17
32	TCIL	93.10	—	-511.46	-604.56
33	TSL	21.02	—	-269.54	-279.81
34	TSP	8.44	—	-96.23	-103.58
TOTAL		3861.44	132.95	-3930.92	-7465.07

- Note: (i) 9 PSEs namely; BPME, WIL, BBVL, RBL, TAFCO CCIL NBCIL, RIC and MAMC have been closed and 5 PSEs (BLC, NIDC, NPPC, BOGL&NIL) are not in operation.
- (ii) Apart from above 34 Operating PSEs, there are two non-manufacturing holding companies namely BBUNL & BYNL.

Important Audit observations from Comptroller & Auditor General Audit Report for 2004*

Bharat Heavy Electricals Limited (BHEL) accepted an order on firm price basis without preparing proper estimates and finalizing design details. As a result, it incurred (January, 2000) extra expenditure of Rs. 13.06 crore due to design changes, increase in consultation charges and delay in execution of the work.

(Para 11.1.1 of Report No. 3 of 2004) Commercial

BHEL blocked its capital amounting to Rs. 3.29 crore since March, 1999 and incurred loss of interest of Rs. 1.57 crore thereon, due to commencement of manufacturing of motors without receipt of advance payment from a private customer and delay in putting the manufacturing activities on 'hold'.

(Para 11.1.2 of Report No. 3 of 2004) Commercial

BHEL could not complete three works within the contractual schedule due to improper planning and inaccurate estimates. This has resulted in loss of Rs. 4.27 crore (May, 1998 to December, 1998) against the estimated profit of Rs. 3.12 crore.

(Para 11.1.3 of Report No. 3 of 2004) Commercial

BHEL incurred loss of Rs. 2.63 crore by accepting orders from a private customer in March, 2000 at unremunerative prices, by not adhering to its pricing policy as well as failure in estimating the workable cost.

(Para 11.1.4 of Report No. 3 of 2004) Commercial

BHEL could neither utilize the entire power generated by its windmill nor could it sell surplus power to APTRANSCO/ third party in the absence of power purchase agreement which resulted in a loss of Rs. 1.96 crore during September, 1999 to June, 2003.

(Para 11.1.5 of Report No. 3 of 2004) Commercial

BHEL incurred an extra expenditure of Rs. 1.92 crore during the period from August 2001 to May, 2003 due to its failure to take note of reduction in prices in subsequent orders and negotiate with supplier for matching prices.

(Para 11.1.6 of Report No. 3 of 2004) Commercial

BHEL suffered a loss of Rs. 1.18 crore during 1999-2000 to 2001-02, due to delayed and defective manufacturing.

(Para 11.1.7 of Report No. 3 of 2004) Commercial

Due to lack of proper co-ordination amongst its units and not taking into consideration the customer's financial capability, BHEL has manufactured (March, 1999) the motors which remained un-disposed for more than four years, resulting in blocking of capital to the extent of Rs. 1.03 crore.

(Para 11.1.8 of Report No. 3 of 2004) Commercial

Due to delay in taking/implementing decision to buy oxygen and nitrogen rather making them in house, Bharat Heavy Plate and Vessels Limited incurred avoidable expenditure of Rs. 1.61 crore during 1997-98 to 2001-02.

(Para 11.2.1 of Report No. 3 of 2004) Commercial

Sanction of ad-hoc advance without approval of its Board or Ministry and in contravention of the Government orders in April, 2000 and February 2001 by Bharat Ophthalmic Glass Limited led to an unauthorized payment of Rs. 1.44 crore to its employees including 36 employees opted for VSS.

(Para 11.3.1 of Report No. 3 of 2004) Commercial

Due to reduction of rates by Ministry of Railways on account of delay in production of wagons, Bharat Wagon and Engineering Company Limited suffered a loss of Rs. 1.83 crore upto June, 2001.

(Para 11.4.1 of Report No. 3 of 2004) Commercial

Delay in taking up the project for commissioning by Hindustan Cables Limited led the viability of project under doubt and the investment of Rs. 19.42 crore on the project remained idle since February, 2001.

(Para 11.6.1 of Report No. 3 of 2004) Commercial

Delay in disposal of slow/non-moving stocks of paper led to a loss of Rs. 8.62 crore on account of inventory carrying cost to Hindustan Paper Corporation Limited during the period from December, 2000 to March, 2002.

(Para 11.7.1 of Report No. 3 of 2004) Commercial

Failure of HMT Machine Tools Limited to supply the machine due to non procurement of imported components resulted in cancellation of the order by the customer leading to blocking up of funds of Rs. 1.31 crore and lost of interest of Rs. 61.16 lakh from April 2000 to June, 2003.

(Para 11.8.1 of Report No. 3 of 2004) Commercial

Delay in supply of equipment by Instrumentation Limited due to delay in placement of order and receipt of supplies from the vendors resulted in a loss of Rs. 3.61 crore by way of liquidated damages up to March,2002.

(Para 11.9.1 of Report No. 3 of 2004) Commercial

Scooters India Limited extended credit to its dealer in relaxation of terms of agreement, and its own credit policy leading to non-recovery of sale proceeds during July,2000 to March, 2003 which had accumulated to Rs. 1.63 crore as on March,2003.

(Para 11.11.1. of Report No. 3 of 2004) Commercial

Review on Marketing Activities by HMT Watches Limited.

The impact of grey / spurious market has been severe on HMT Watches due to its high brand equity. Outsourcing of appearance parts and watches under HMT brand name without adequate checks was found to be a major contributing factor for the growth of grey/spurious market for HMT watches.

Inaccurate market projections resulted in accumulation of stock and also accumulation of debts due to setting up Redistribution stockists (RDSs) sales without valid order.

The Company had to compromise its dominant role as producer of high brand equity watches vis-à-vis RDSs and had to relax credit policy to its disadvantage.

The selection of a Vendor for outsourcing the complete watches is questionable as it ignored all prescribed procedures including Central Vigilance Commission guidelines in this regard. The justification for outsourcing of complete watches was not based on any cost-benefit study/analysis. The documentation involved in outsourcing agreement/transactions was not transparent. The whole exercise from justification of outsourcing to selection of vendor and further transactions lacked transparency.

(Report No. 4 of 2004) Commercial

* Observations as received from the Ministry of Finance vide their D.O. No.2100/E-coord/2003 dt. 8.12.2004 for inclusion in the Annual Report.

ABBREVIATIONS

AAIFR	Appellate Authority of Industrial & Financial Reconstruction
ARAI	Automotive Research Association of India
AY & CO	Andrew Yule & Co.
BBJ	Braithwaite, Burn & Jessop Construction Co. Ltd.
BBUNL	Bharat Bhari Udyog Nigam Ltd.
BHEL	Bharat Heavy Electricals Ltd.
BHPV	Bharat Heavy Plates & Vessels Ltd.
BIFR	Board of Industrial & Finance Reconstruction
BLC	Bharat Leather Corporation Ltd.
BOGL	Bharat Ophthalmic Glass Ltd.
BPCL	Bharat Pumps & Compressors Ltd.
BPME	Bharat Process & Mechanical Engineers Ltd.
BRAITHWAITE	Braithwaite & Co. Ltd.
BSCL	Burn Standard Company Ltd.
BWEL	Bharat Wagon & Engineering Co. Ltd.
BYNL	Bharat Yantra Nigam Ltd.
BRPSE	Board for Reconstruction of Public Sector Enterprises
C-DOT	Centre for Development of Telematics
CCI	Cement Corporation of India Ltd.
CCIL	Cycle Corporation of India Ltd.
CEA	Central Electricity Authority
CNC	Computer Numerically Controlled
DOE	Department of Electronics
EEC	European Economic Community
EOT	Electrically Operated Trolley
EPI	Engineering Projects (India) Ltd.
FBP	Fluidised Bed Combustion
FCRI	Fluid Control Research Institute
FFP	Foundry Forge Plant
HCL	Hindustan Cables Ltd.
HMBP	Heavy Machine Building Plant
HMT(I)	HMT (International) Ltd.
HMTp	Heavy Machine Tools Plant
HNL	Hindustan Newsprint Ltd.
HPC	Hindustan Paper Corporation Ltd.
HPF	Hindustan Photo Films Manufacturing Co. Ltd.
HSL	Hindustan Salts Ltd.
HVDC	High Voltage Direct Current
ILK	Instrumentation Ltd., Kota
ISRO	Indian Space Research Organisation

JESSOP	Jessop & Co. Ltd.
kV	Kilo Volt
kW	Kilo Watt
LAGANJUTE	Lagan Jute Machinery Co. Ltd.
MAMC	Mining & Allied Machinery Corporation Ltd.
MAX	Main Automatic Exchange
MoU	Memorandum of Understanding
MT	Metric Tonne
MUL	Maruti Udyog Ltd.
MVA	Mega Volt Amperes
MW	Mega Watt
NBCIL	National Bicycle Corporation of India Ltd.
NC	Numerically Controlled
NEPA	NEPA Ltd.
NCMP	National Common Minimum Programme
NIDC	National Industrial Development Corporation Ltd.
PSE	Public Sector Enterprise
PTL	Praga Tools Ltd.
R&C	Richardson & Cruddas (1972) Ltd.
RDSO	Research Design & Standard Organisation
RIC	Rehabilitation Industries Corporation Ltd.
RSW	Radiation Shielding Window
SIL	Scooters India Ltd.
SSL	Sambhar Salts Ltd.
TAFCO	Tannery & Footwear Corporation of India Ltd.
TCIL	Tyre Corporation of India Ltd.
TSL	Triveni Structural Ltd.
TSP	Tungabhadra Steel Products Ltd.
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organisations
VRS	Voluntary Retirement Scheme
WIL	Weighbird (India) Ltd.



Department of Public Enterprises

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1

Public Enterprises Survey

- 1.1 Department of Public Enterprises (DPE), presents to Parliament every year an overview of the financial, physical and socio-economic performance of Central Public Sector Enterprises (CPSEs).
- 1.2 The Public Enterprises Survey covers the Central Public Sector Enterprises (CPSEs) established by the Government of India as Government Companies under the Companies Act or as Statutory Corporations under specific statutes of Parliament. This survey covers only those Government companies in which Central Government's holding in paid up share capital is not less than fifty one per cent and also covers the subsidiaries of such CPSEs but does not include public sector commercial banks and financial institutions.
- 1.3 The Estimates Committee, in their 73rd Report (1959-60), had recommended to the Government that in addition to the individual annual report of each enterprise laid on the Table of both the Houses of Parliament, a separate comprehensive report should be submitted to the Parliament indicating Government's total appraisal of the working of public enterprises. Accordingly, the first "Annual Report" (Public Enterprises Survey) was prepared by the erstwhile Bureau of Public Enterprises (now DPE) in 1960-61 giving a consolidated picture of the performance of the central public sector enterprises.
- 1.4 The Committee on Public Undertakings (COPU) in their 46th Report (5th Lok Sabha) covered various aspects such as scope, coverage, classification of undertakings, contents of the report, time for presentation and other matters relating to the Public Enterprises Survey. Recommendations of the COPU have also been taken into account while preparing the Public Enterprises Survey.

1.5 Public Enterprise Survey 2003-04 shall be forty-fourth report on the overall performance of CPSEs. The basic data for the Survey is compiled from the Annual Reports and Accounts furnished by the individual enterprises to this Department. The data is compiled, analysed and presented in three separate volumes.

1.5.1 Volume-1 contains a macro appraisal and analysis of the performance of central public enterprises in terms of broad physical and financial parameters. Various chapters in this Volume reflect the key activities and progress made in the specific areas by the public enterprises. An analysis on the performance of enterprises with reference to some important ratios such as profit before interest and tax to capital employed, sales to capital employed, etc. are also included in this Volume. It also covers items like internal resources generation for financing the Plan

Outlay, contribution to the public exchequer, management development, development of backward regions, employment generation, employees welfare measures, foreign exchange earnings, import substitution effort and such other related matters, so as to present a comprehensive picture.

1.5.2 Volume-2 contains an analysis of the performance of the CPSEs in different sectoral cognate groups and of individual enterprises. It also contains a brief description of the background on the areas of activities and physical & financial performance of individual enterprises.

1.5.3 Volume-3 contains enterprise-wise analytical data for the last three years (viz. 2003-2004, 2002-2003 and 2001-2002). The information consists of summarized balance sheet, summarised profit and loss account and important management ratios.

2

Autonomy to PSEs and Professionalization of their Boards

2.1 It is the endeavour of the Government to make public sector enterprises autonomous board managed companies. Under Articles of Association, the Board of Directors of PSEs enjoy autonomy in respect of recruitment, promotion and other service conditions of below Board level employees. The Board of Directors of a PSE exercises power in this regard subject to broad policy guidelines issued by Government from time to time on subjects like reservations for different categories of citizens.

2.1.1 The Govt. have granted additional financial powers to the Boards of the profit making enterprises to sanction capital outlay without prior approval of the Govt. on 6.5.1997 as per details given below:-

Gross Block of the PSEs	Amount
Less than Rs.100 crores	Rs. 10 crores
Between Rs.100 crores & Rs. 200 crores	Rs. 20 crores
Between Rs.200 crore and Rs. 500 crores	Rs. 40 crores
Above Rs. 500 crores	Rs. 100 crores

2.1.2 MOU signing companies have been delegated higher powers in respect of wage revision, for evolving incentive scheme, voluntary retirement scheme and transfer of functional directors within PSE, etc.

2.2 REVIEW OF GUIDELINES

In order to give greater functional autonomy to the management of CPSEs, the guidelines issued by the Department of Public Enterprises are reviewed from time to time. Accordingly 696 guidelines were cancelled in December 1997. And

another review of the retained guidelines as well as those issued subsequently upto 31.12.2000 was undertaken by a Committee headed by the Chairman, PESB. Based on the recommendation of the Committee, 66 more guidelines have been cancelled, 11 Guidelines have been removed and merger/modification in respect of 24 guidelines is under process in consultation with Ministries/ Departments concerned.

2.3 NAVRATNA CPSEs

2.3.1 In July, 1997 the Government had identified 9 Public Sector Enterprises that had comparative advantages and potential to emerge as global giants as Navratnas. These PSEs are given enhanced autonomy and delegation of powers to incur capital expenditure, to enter into technology Joint Ventures/Strategic Alliances, to effect organizational restructuring, to create and wind up below Board level posts, to raise capital from domestic and international market, to establish financial joint ventures and to wholly owned subsidiaries, etc. Restructuring of Board by inducting at least 4 non-official Directors is a pre-condition for exercise of the enhanced powers. The 9 Navratna PSEs are BHEL, BPCL, GAIL, HPCL, IOC, MTNL, NTPC, ONGC and SAIL.

2.3.2 The Government have laid down the following criteria for grant of Navratna status to new PSEs:

- The PSE should be Schedule 'A'.
- The PSE should be Mini Ratna Category I
- The PSE should have obtained minimum three excellent, Very Good MOU rating in last five years.

- The PSE should have a composite score of 60 or more calculated with reference to 6 identified performance indicators.

2.4 MINIRATNA CPSEs

2.4.1 In October 1997 the Government further decided to grant enhanced autonomy and delegation of financial powers to other profit making companies subject to certain eligibility conditions and guidelines to make them efficient and competitive. These companies are called Miniratnas and these are in two categories, namely, Category – I & II.

2.4.2 The criteria for conferring the status of Miniratna are

- the PSE should be profit making for the last 3 years continuously and should have positive net worth,
- should not have defaulted in repayment of loans/interest payment on loans due to government,
- should not depend upon budgetary support or government guarantee and
- its Board should have at least 3 non-official Directors.

PSEs which have made pre-tax profit of Rs.30 Crore or more in at least one of the 3 years will be given Category I while others are given Category II status. The administrative Ministries are empowered to declare a PSE as a Miniratna if it fulfils the eligibility conditions.

2.4.3 The enhanced powers given to Miniratna PSEs include the power:

- to incur capital expenditure of Rs. 3000 crore to Category I and Rs. 150 crore to Category II;

- to enter into joint ventures;
- to set up technological and strategic alliances; and
- to formulate schemes of human resources management.

Presently there are 45 Miniratna PSEs (30 Category I and 15 Category II). The names of Miniratna PSEs are given in the Annexure-II. Exercise of enhanced powers by these PSEs is subject to the condition that adequate number of non-official Directors are inducted on their Boards. Performance of Miniratna CPSEs is reviewed by Inter Ministerial Committee headed by the Secretary, Department of Public Enterprises. Performance of Miniratna Companies were reviewed by the Inter Ministerial Committee during 2003-04.

2.5 PROFESSIONALIZATION

2.5.1 In pursuance of industrial policy statement announced on 24th July 1991, several measures have been taken to professionalise the boards of management of public sector enterprises. As per the guidelines issued by DPE in March 1992, the number of such non-official part-time Directors should be at least 1/3rd of the actual strength of the Board. The guidelines also envisage that the number of Government Directors on the Boards should be not more than one-sixth of the actual strength of the Board and in any case should not exceed two. Apart from this there should be some functional Directors on each Board whose number could be upto 50% of the actual strength of the Board. As per SEBI's guidelines on corporate governance, in the cases of the listed companies headed by non-executive Chairman at least 1/3rd of the Board should comprise Independent Directors and in the

cases of companies headed by executive Chairman at least half of the Board should comprise Independent Directors.

Appointment of non-official part-time Directors on the Boards of PSEs is made by the administrative Ministries/ Department from the panel prepared in consultation with the Department of Public Enterprises.

2.5.2 In so far as Navratna and Miniratna PSEs are concerned the panel of non-official part-time Directors is prepared by a Search Committee consisting of Chairman (PESB), Secretary (DPE), Secretary of the administrative Ministry/Department concerned and 4 non-official Members. According to the Navratna and Miniratna schemes, the Boards of these companies should have a minimum of 4 non-official Directors in the case of Navratnas and 3 non-official Directors in the case of Miniratnas before the Board exercise the enhanced powers.

2.5.3 The Government have laid down criteria for selection and appointment of part-time non-official Directors on the Boards of PSEs. Accordingly, the part-time non-official Director should have a minimum qualification of a graduate degree from a recognized university; he should have not less than 10 years experience at the level of Joint Secretary and above in the Government or CMD/MD in Corporate Sector/PSEs or Professor level in an Academic Institution/professionals of repute like eminent Chartered Accountants/Cost Accountants at the level of Directors of Institutes/Heads of Department; and he should be between 45-65 years of age.

3

Board for Reconstruction of Public Sector Enterprises (BRPSE)

- 3.1 During the Budget Speech for 2004-2005, Finance Minister announced that Government would constitute Board for Reconstruction of Public Sector Enterprises (BRPSE) to address the problems relating to strengthening, modernizing, reviving and restructuring of Public Sector Enterprises. Subsequently the Government vide notification dated 6th December, 2004, have constituted the Board (BRPSE) consisting Chairman and three non-official members and three official members. Chairman, PESB is a permanent invitee and the Secretary of the concerned administrative Ministry/Department is a special invitee to the meetings concerning his Ministry.
- 3.2 Terms of Reference of the BRPSE are as follows:-
- i) To advise the Government on ways and means for strengthening public sector enterprises in general and making them more autonomous and professional;
 - ii) To consider restructuring – financial, organizational and business (including diversification, joint ventures, merger and acquisition) – of CPSEs and suggest ways and means for funding such schemes;
 - iii) To examine the proposals of the administrative Ministries for revival/restructuring of sick/loss making CPSEs for their turnaround.
 - iv) To advise the Government on disinvestment/closure/sale in full or part in respect of chronically sick/loss making companies which cannot be revived. In respect of such unviable companies the Board would also advise the Government about sources of fund including sale of surplus assets of the enterprise for the payment of all

legitimate dues and compensation to workers and other costs of closure;

- v) To monitor incipient sickness in CPSEs; and
- vi) To advise the Government on such other matters as may be assigned

to it by the Government from time to time.

3.3

Since the inception of BRPSE, four meetings have taken place during the months of December 2004 and January 2005 and the Board has recommended the revival proposal in respect of one CPSE.

4

MoU System in Central Public Sector Enterprises

4.1 THE CONCEPT OF MOU

4.1.1 The Memorandum of Understanding is a negotiated document between the Government, acting as the owner of Public Sector Enterprise (PSE) and a specific PSE. It should contain the intentions, obligations and mutual responsibilities of the Government and the PSE.

4.1.2 Further, MOU makes an attempt to move the management of PSEs from management by controls and procedures to management by results and objectives.

4.2 INSTITUTIONAL ARRANGEMENTS FOR IMPLEMENTING MOU POLICY

The present institutional arrangement envisages to put in place an objective and transparent mechanism to evaluate the performance of the managements of the PSEs. It provides a system through which

the commitments of both the parties to the MOU can be evaluated at the end of the year besides improving the technical inputs required to finalize the MOUs. The details of this institutional arrangement and their inter-linkages are as follows.

4.3 HIGH POWER COMMITTEE

4.3.1 At the apex of this institutional arrangement is the High Power Committee (HPC) consisting of following members.

1. Cabinet Secretary, Chairman
2. Finance Secretary, Member
3. Secretary (Expenditure), Member
4. Secretary (Planning Commission), Member
5. Secretary (Statistics & Programme Implementation), Member
6. Chairman (Public Enterprises Selection Board), Member

7. Chief Economic Adviser, Member
8. Secretary (Public Enterprises),
Member-Secretary

4.3.2 The functions of this committee are to review the draft MOUs before the final draft is signed and to make an end-of-the-year evaluation to judge how far the commitments made by both parties of the MOU have been met. The power to approve the final MOUs has since been delegated to Task Force/DPE and only in those cases where Task Force is not able to take a decision is referred to HPC.

4.3.3 The concern regarding the imbalance in the technical expertise available with the Government has been sought to be rectified by forming the Task Force.

4.4 TASK FORCE

4.4.1 The main objective behind the creation of a Task Force was to take care of the concern regarding the imbalance in technical expertise available between the Government and PSEs. The main functions of the Task Force are to:-

- (a) examine the design of MOU at the beginning of the year. For this purpose the draft MOU agreed upon by the PSE and the relevant Administrative Ministry is examined by the Task Force. If Task Force has any comments or questions regarding the draft MOUs, they seek clarifications via DPEs MOU Division. Once the signatories to MOUs have responded to the concerns expressed by the Task Force on their draft MOUs, the MOU negotiation

meetings are organized. These meetings are attended by the executives of PSEs, senior officials of the concerned Administrative Ministry and representatives from the nodal agencies such as Planning Commission, Ministry of Statistics & Programme Implementation and Ministry of Finance. The draft MOUs are discussed and finalized during these meetings.

- (b) evaluate the composite score for each enterprise at the end of the year.

4.4.2 The Task Force consists of retired civil servants, executives of public sector, management professionals and independent members with considerable experience. It was decided by the High Power Committee that no one belonging to the Government should be a member of this Task Force. This was considered essential to maintain objectivity and credibility of the Task Force.

4.5 MOU DIVISION

The HPC and Task Force are assisted by the MOU Division in the Department of Public Enterprises. It also acts as the permanent secretariat to this HPC and Task Force. The main functions of this Division are to :-

- provide logistical, technical and administrative support to the Task Force;
- act as buffer between the Task Force members and the two signatories to the MOUs - PSEs and Administrative Ministries;

- develop information and data base on MOU signing PSEs;
- assist the High Power Committee;
- monitor the progress of MOUs;
- advise and counsel to the MOU signatories on methodological and conceptual aspects of the MOU policy; and
- coordinate research and training on various aspects of MOU policy.

4.6 WORKING OF MOU SYSTEM

- 4.6.1 The process of signing of MOU is initiated with the issue of guidelines by the MOU Division for drafting of MOUs. These guidelines indicate the broad structure and the aspects to be covered in the draft MOU including the weights to be assigned to financial parameters. These guidelines reflect the main concerns of the Government and contain the general direction towards which PSEs must move.
- 4.6.2 On the basis of these Guidelines, the draft MOUs are prepared by PSEs and submitted to DPE after due discussions in Board and with the concerned Administrative Ministry/Department in the month of December. The draft MOUs received in DPE are examined in detail in consultation with Task Force. During the process of examination of these draft MOUs all possible relevant information/sources of information are utilized to ensure that the targets proposed in the draft documents are realistic. Wherever possible inter-firm comparison is carried out and the proposed targets are viewed in the context of the past performance of the PSE.

4.7 MOU NEGOTIATION MEETINGS

- 4.7.1 Under the present system efforts are made to ensure that all the MOUs are signed well before the beginning of the financial year. In view of this, the draft MOUs submitted by the PSEs are discussed in the MOU negotiation meetings. Besides Task Force members, these meetings are attended by senior officials of the Administrative Ministries, top executives of PSEs and the representatives from the nodal agencies of the Government of India such as Planning Commission, Ministry of Finance & Ministry of Statistical and Programme Implementation. As mentioned earlier, all possible inputs provided by the professionals, Ministries and the DPE are utilized to finalise the targets. In addition, the general aspects of existing economic situation relating to the performance of the PSE are also discussed in detail before finalizing the targets. The parameters to measure the performance of the managements of the PSEs are selected after a great deal of thought and the weights are assigned to these performance parameters keeping in view their importance and the nature of operation of the PSE. The targets proposed by the PSEs are discussed freely and are finalized broadly on consensus basis. In fact, the MOU negotiation meeting also provide a forum to discuss certain good practices adopted in other PSEs and these innovative ideas are disseminated through this process. The MOUs finalised during these meetings are signed by the Chief Executive of the PSE and the Secretary of the concerned Ministry before 31st of March.

4.8 EVALUATION OF MOU

4.8.1 Performance of MOU signing PSEs is evaluated with reference to their MOU targets twice in a year. First the performance is evaluated on the basis of provisional results and secondly on the basis of audited data. The performance evaluation exercise is also carried out in an extensive manner. As mentioned earlier this performance evaluation exercise is not carried out purely through a mechanical procedure. In fact, at the end of the year the review meetings are held which provides an opportunity to consider the proposals to adjust the criteria values for factors which were not predicted and could not have been predicted by either party. Thus, the MOU evaluation is finalised on the basis of the actual performance and the PSEs are graded as "EXCELLENT", "VERY GOOD", "GOOD", "FAIR" & "POOR".

4.9 COVERAGE OF PSEs UNDER THE MOU SYSTEM

4.9.1 The MOU system has grown over time from four MOUs signed in the year 1987-88; 103 MOU's have been finalized/signed for the year 2004-2005. Infact many of these 103 PSE's are holding companies and if their subsidiaries are also included, then the total No. of PSE's covered under MOU system works out to be 152. The number of MOUs signed/finalised since the inception of the MOU system are as follows.

Year	No. of MOU's signed/finalised	Year	No. of MOU's signed/finalised
1987-88	4	1996-97	110
1988-89	11	1997-98	108
1989-90	18	1998-99	108
1990-91	23	1999-2000	108
1991-92	72	2000-2001	107
1992-93	98	2001-2002	104
1993-94	101	2002-2003	100
1994-95	100	2003-2004	96
1995-96	104	2003-2004	103 (List of PSEs signed is shown in Annexure III)



Conference of Chief Executives of Central PSEs organized jointly by DPE & SCOPE on 4th September 2004 at Vigyan Bhawan, New Delhi.

4.10 ACHIEVEMENTS OF THE MOU SYSTEM

4.10.1 Viewed in the light of the objectives the effectiveness of the MOU system can be summarised as follows:

- * The focus, under the MOU system, has shifted to achievements of results.
- * Operational autonomy has also been encouraged and increased by delegation of more financial and administrative powers to the MOU signing PSEs.
- * By laying stress on marketing effort and comparing with private sector enterprises MOU are helping PSEs to face competition.
- * The quarterly performance review (QPR) meetings have become more

focused since the introduction of MOUs. Discussion is confined to overall achievement as outlined in the MOUs.

4.11 PERFORMANCE OF THE MOU SIGNING PSEs

4.11.1 The summary performance of MOUs signing PSEs as reflected in their MOU rating during the last five years has been follows;

Rating	No of Public Sector Enterprises				
	1999-2000	2000-01	2001-02	2002-03	2003-04
Excellent	49	50	41	46	53
Very Good	29	28	25	21	23
Good	09	09	15	12	12
Fair	16	14	12	16	8
Poor	03	03	03	02	0
Excluded	02	01	08	03	-
Total	108	107	104	100	96@

@ List of these PSEs is given in Annexure IV



Award Winners in PSEs with the Hon'ble Prime Minister

5

Human Resources Development

5.0 Central Public Sector Enterprises (CPSEs) has a vast reservoir of professionally qualified manpower in different disciplines and the efficient operations of these enterprises, to a large extent, depend on the effective utilization of this manpower. There have been widespread changes in the management techniques, technologies, financial methods, production management, etc. due to globalisation and liberalization. Human Resource Development is thus a thrust area of public sector performance. It necessitates creating an environment in which people can develop their full potential for productive and creative activities. To improve the quality and capabilities of the manpower as well as to upgrade their knowledge and skill, various steps have been taken by the CPSEs. Apart from organizing in-house training programmes, the CPSEs also

depute their executives for various training programmes being organized by premier Management/Training Institutes in India and abroad.

5.1 TRAINING

5.1.1 As the nodal Department for PSEs, the Department of Public Enterprises is supplementing the efforts of the public enterprises towards human resource development by organizing Executive Development Programmes (EDPs) for senior and middle level executives in collaboration with premier Management/ Training Institutes in the country. DPE also sponsors PSE executives for training abroad under various aided schemes.

5.1.2 The EDPs are conducted for duration of 2-5 days. During 2003-04, 47 EDPs were conducted and for the year 2004-05, 36 such programmes are planned. About 600-

800 executives are covered every year under this programme. These programmes are organized in collaboration with Indian Institutes of Management; Institute of Public Enterprise Hyderabad; National Institute of Financial Management, Faridabad; Indian Institute Public Administration Delhi, Institute of Chartered Accountants of India; Indian Institute of Plantation Management Bangalore; International Management Institute Delhi; Indian Society for Training & Development; Institute of Cost & Works Accountants of India; Institute of Company Secretaries of India; V.V. Giri National Labour Institute Noida; Management Development Institute Gurgaon; National Productivity Council New Delhi; CMC Ltd. etc. The subjects covered under these programmes include financial management, leadership challenge, effective marketing management, total quality management, information technology & e-commerce, management information systems, communication skills, corporate governance, MOU principles & practices, project management, capital market reform & risk management, negotiation strategies & skills, health & stress management, industrial relations & labour issues, International taxation/ International finance, etc.

5.1.3 The training programme abroad being offered under various aided schemes are coordinated by the Department of Public Enterprises. During 2004-05 (up to December 2004), 23 executives have been recommended for different training programmes in Canada, Malaysia, Thailand, Singapore, New Zealand, Korea, USA, Vietnam and Japan under different aided schemes. These programmes were on subjects like developing e-government

strategies, globalisation – implications for management and governance, benchmarking and ISO 9000, supporting public sector reform using education & training strategies to build capability, etc.

5.1.4 India is a founder member of International Center for Promotion of Enterprises (ICPE), Ljubljana, Slovenia. India makes an annual contribution of US\$ 75000 to ICPE from the DPE budget. Currently Secretary (DPE) is the President of the ICPE Council.

5.1.5 Secretary DPE is a member on the Board of Governors of IIM Ahmedabad, IIM Calcutta and Institute of Public Enterprise Hyderabad. Secretary DPE is also a member of the Executive Board of the Standing Conference of Public Enterprises (SCOPE)

5.2 PERSONNEL POLICY

5.2.1 Various personnel policy matters relating to PSUs are dealt by DPE. Some of the important policy initiatives taken during the year are given below.

PROCEDURE FOR SELECTION TO BOARD LEVEL POSTS IN PSUS

5.2.2 The Public Enterprise Selection Board (PESB) had been recommending two names in order of merit for board level posts in Public Sector Undertakings that fall within the selection purview of PESB. The second name is recommended in order to obviate the necessity of going through the selection process all over again in case the person at sl. No. one is not available owing to lack of vigilance clearance or any other reason. However, it has been decided that henceforth PESB will recommend only one name for each vacant post.

EXTENSION IN SERVICE BEYOND THE AGE OF SUPERANNUATION

5.2.3 As per Government's policy regarding age of retirement of employees of Public Sector Enterprises, there is a complete ban on extension of service beyond the age of superannuation i.e. 60 years. The age of superannuation in some PSEs has subsequently been rolled back to 58 years. The Government has decided in November 2004 that no proposal for extension of service beyond the age of Superannuation in respect of employees of Public Sector Enterprises shall be entertained. Thus, there will be no extension of service beyond the age of superannuation, i.e. 58 years or 60 years, as the case may be.

Restrictions on post retirement employment

5.2.4 Reasonable restrictions have been placed on the post retirement employment of Chief Executives and Functional Directors of PSEs. According to these instructions 'no Functional Director of the company including Chief Executive, who has retired from the service of the company, after such retirement, shall accept any appointment or post, whether advisory or administrative, in any firm or company, whether Indian or foreign, with which the company has or had business relations, within two years from the date of his retirement, without prior approval of the Government'. The term 'retirement' includes resignation, but not cases of those whose term of appointment was not extended by the Government for reasons other than proven misconduct. Further, term 'business relations' includes official dealings.

5.2.5 The administrative Ministries/Departments are empowered to consider and decide

requests for post-retirement employment received from Board level executives of PSEs under their administrative control in consultation with DPE and with the approval of the Minister-in-charge of the administrative Ministry.

Date of Upgradation of Pay-Scales of Board Level Executives of PSEs Consequent upon the Up gradation of the PSEs

5.2.6 The Government have considered the question as to the date from which the upgradation of the pay-scales of the incumbent board level functionary should take effect as a consequence of the upgradation of the schedule of the PSEs, and it has been decided that the date of order of ACC in respect of upgradation of an officer should be the relevant date for allowing the higher scale of pay to him. In the cases of schedule 'C' and schedule 'D' PSEs, the date of approval of the PESB recommendation by the competent authority in the administrative Ministry/ Department concerned would be the relevant date for allowing the higher scale of pay.

Age of retirement of part-time Chairmen of Public Enterprises

5.2.7 The Government have decided that the age of retirement for part-time Chairmen in the Public Sector Enterprises will be 62 years.

Criteria for appointment of part-time non-official Directors in Central PSEs

5.2.8 The Government have laid down criteria for selection and appointment of part-time non-official Directors on the Boards of PSEs. Accordingly, the part-time on-official Director should have a minimum qualification of a graduate degree from a

recognized university; he should have not less than 10 years experience at the level of Joint Secretary and above in the Government or CMD/MD in Corporate Sector/PSEs or Professor level in an Academic Institution/professionals of repute like eminent Chartered Accountants/Cost Accountants at the level of Directors of Institutes/Heads of Department; and he should be between 45-65 years of age.

Employment in Central Public Enterprises under Reserved Categories

5.2.9 The Public Enterprises generally follow the instructions of the Department of Personnel & Training regarding Reservation Policy. A Presidential Directive incorporating all the important instructions in this regard was issued in February 1982 to the concerned administrative Ministries/ Departments by the Department of Public Enterprises for formal issuance to the Public Enterprises. Since then, the Department of Personnel & Training have issued various instructions/directives relating to the reservation Policy of the Government. The Department of Public Enterprises have consolidated these instructions and a revised comprehensive directive was issued to all Administrative Ministries/Departments in April, 1991 for formal issuance to PSEs. Instructions issued subsequently on reservation matters have also been extended to Public Sector Enterprises.

5.2.10 The present quota of reservation for employees belonging to Scheduled Castes, Scheduled Tribes and OBCs where recruitment is on All-India basis through open competition as well as other categories of employees entitled to

reservation is indicated below:-

	Group 'A' & 'B'	Group 'C'	Group 'D'
Scheduled Castes	15%	15%	15%
Scheduled Tribes	7.5%	7.5%	7.5%
Other Backward Classes	27%	27%	27%
Physically Handicapped Persons	3%	3%	3%
Ex-servicemen & Dependents of those killed in action	-	14.5%	24.5%

5.2.11 Although the administrative Ministries/ Departments concerned have been made responsible for implementation of reservation policy, the Department of Public Enterprises also keep a watch on the progress made by PSEs in the implementation of the reservation scheme in the recruitment by calling for Annual Reports from the public enterprises and also by taking follow-up action after scrutinizing these reports. Based on the information furnished by the PSEs the position regarding representation of Scheduled Castes and Scheduled Tribes in respect of 189 Public Enterprises as on 1.1.2004 is given below:-

Group	Total No. of			Representation of SCs/STs			
	Employees	SCs No.	%age	STs No.	%age	OBCs No.	%age
Group 'A'	1,65,320	20,006	12.10	6,032	3.65	8,978	5.43
Group 'B'	1,56,822	19,802	12.63	8,980	5.73	12,166	7.76
Group 'C'	7,14,125	1,41,357	19.79	67,396	9.44	1,13,992	15.96
Group 'D' (excluding Safai Karamcharis)	2,58,663	55,453	21.44	32,073	12.40	46,023	17.79
Total	12,94,930	2,36,618	18.27	1,14,481	8.84	1,81,159	13.99
Group 'D' (Safai Karamcharis)	17,778	13,111	73.75	568	3.19	838	4.71
Grand Total	13,12,708	2,49,729	19.02	1,15,049	8.76	1,81,997	13.86

5.2.12 The need to ensure timely filling up of reserved posts has been stressed in various instructions from time to time. All administrative Ministries/ Departments have been requested to advise the PSEs under their administrative control to take

effective steps to fill up the unfilled reserved posts and backlog vacancies in Direct Recruitment as well as in promotion in accordance with the existing instructions.

RESERVATION FOR OBCs

5.2.13 Based on the recommendations of the Second Backward Classes Commission (Mandal Commission) and in accordance with the Supreme Court Judgement in the Indira Sawney Case, instructions were issued providing reservation of 27% of vacancies in favour of Other Backward Classes (OBCs) in Civil Posts and Services under the Government of India.

5.2.14 Department of Personnel & Training (DoPT) who formulate the policy in respect of reservation in services, have been issuing instructions from time to time on various aspects of reservation in respect of OBCs. Reservation for OBCs was made effective w.e.f. 8.9.1993. Department of Public Enterprises have been extending these instructions to the Public Sector Enterprises through their administrative Ministries for compliance. A comprehensive Presidential Directive incorporating all instructions was prepared by the Department of Public Enterprises and issued to all administrative Ministries vide DPE's OM dated 27th July, 1995 for

formal issuance to the PSEs under their control, under the relevant Articles of Association/Section of the relevant Act.

RESERVATION FOR PERSONS WITH DISABILITIES

5.2.15 This Department has also issued instructions to ensure reservation for the Persons with Disabilities up to 3% of the vacancies occurring in a particular year (1% for Visually Handicapped, 1% for Hearing and 1% for Orthopaedically Handicapped). A Presidential Directive in respect of reservation for physically handicapped persons, incorporating all important instructions in this regard was issued in April, 1991 to the concerned administrative Ministries/Departments by the Department of Public Enterprises for formal issuance to the Public Enterprises. With the enactment of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, the reservation to Physically Handicapped Persons stood extended to identified Group 'A' and 'B' posts filled through Direct Recruitment. All PSEs have been advised to comply with the provisions of the Act and evolve a time frame by which the backlog of vacancies can be cleared.

6

Support Services to PSEs

6.1 PURCHASE PREFERENCE POLICY

6.1.1 Purchase Preference Policy was introduced in 1992 replacing the earlier policy of price preference. The objective of the policy is to provide level playing field to the Central Public Sector Enterprises (CPSEs) in the wake of globalization/liberalization and to provide an opportunity to adjust themselves in the new environment of competition and effectiveness. The policy aims at to utilize the created capacities in the public sector to the fullest extent so as to improve the performance of CPSEs at sustainable level on long term basis.

6.1.2 The Purchase Preference Policy is not of permanent nature and therefore, has been reviewed and extended from time to time. In pursuance to the decision of the Government on 13.10.2004, the Policy which was in force till 31.3.2004 has been extended till 31.3.2005 vide Department

of Public Enterprises O.M. dated 26th October, 2004.

6.1.3 This policy provides purchase preference to CPSEs in supply of goods and services to the Government Departments, Autonomous bodies and other PSEs at L1 price if the price quoted by the supplying CPSE is within 10% of the lowest valid bid price, other things being equal. The provisions relating to purchase preference should be specified in the "Notice Inviting Tender" (NIT) for Rupees five crores and above. Besides CPSEs, the policy has been made applicable to the joint venture companies where holding of Government and/or CPSEs is 51% or more and joint ventures which are subsidiaries of CPSEs with CPSEs holding 51% equity or more. Public enterprises which avail of benefit of the purchase preference should be subject to adequate penalties for cost over-

runs etc. For any deviation including exclusion of the purchase preference clause from the NIT, it will be obligatory for the concerned Ministries/Department/CPSE/Autonomous bodies to obtain prior exemption from the Cabinet in consultation with the Department of Public Enterprises.

- 6.1.4 As per the available information 36, Central Public Sector Enterprises including two Joint Venture were benefited under this scheme during 2002-2003 by getting orders of about Rs. 1200 Crores. During 2003-2004, 35 CPSEs, Two privatized companies and one joint venture were benefited by getting orders of around Rs. 1500 crores from CPSEs, Govt Deptts; autonomous bodies etc. under this scheme.

6.2 PERMANENT MACHINERY OF ARBITRATION

- 6.2.1 Permanent Machinery of Arbitrators (PMA) has been set up in Department of Public Enterprises for resolving commercial disputes, except taxation, between PSEs inter-se as well as between a PSE and a Central Government Department/Ministry. From 1993-94 disputes with Port Trusts

have also been included under the purview of PMA for arbitration. The Ministry of Railways were excluded from the purview of PMA vide DPE OM dated 12.2.97. The disputes are required to be referred to Department of Public Enterprises for its reference to the Arbitrator of PMA. Secretary, Department of Public Enterprises on being satisfied with prima facie existence of dispute, refers the dispute to the Arbitrator of the PMA for Arbitration. The Arbitration Act, 1940 (now 1996) is not applicable in these cases. No outside lawyer is allowed to appear on behalf of either party for presenting/defending the cases.

- 6.2.2 The PMA guidelines were revised and issued on 22.1.04. There is one Arbitrator in the PMA and ever since the PMA was created in 1989, the Secy (PE) has referred 186 cases to the Arbitrators of PMA, out of which Awards in 109 cases have been published. The PMA is designed to be self-supporting, hence the PMA charges an Arbitration fee which is worked out by the Arbitrator, based on the formula given in the guidelines.

7

Wage Policy and Manpower Rationalization

7. WAGE POLICY

7.1 The Wage Cell in DPE is mainly dealing with matters relating to pay scales, both Industrial Dearness Allowance (IDA) pattern and Central Dearness Allowance (CDA) pattern of employees in PSEs. It also deals with finalisation of terms and conditions, determination of pay of Board level executives and finalisation of terms and conditions of civil servants deputed as CVOs in CPSEs. Policy matters relating to pay/wage revision and allowances and perquisites in respect of both executives and workers in CPSEs are also dealt with in the Wage Cell.

7.2 VOLUNTARY RETIREMENT SCHEME (VRS)

7.2.1 In the present deregulated and globally competitive scenario, in view of the ongoing restructuring in the industries including Central PSEs, several measures

for reforms and restructuring of CPSEs have been taken up by the Government. Rightsizing of manpower in the CPSEs is one of the measures adopted.

7.2.2 In the process, the Voluntary Retirement Scheme, which was initially announced in October, 1988 for the first time was revised and a comprehensive package was notified vide DPE's O.M dated 5th May, 2000 so as to cater to the need of the CPSEs to meet their objectives and also to protect the interest of the workers affected due to various modes of restructuring.

7.2.3 Considering the difficulties faced by the enterprises where the wage revision effective from 1st January, 1992 or 1997, as the case may be, could not be effected, the Voluntary Retirement Scheme was liberalized by issuance of subsequent notification on 6th November, 2001, which inter alia provides for 100% additional

compensation for the employees where wage revision of 1992 could not be effected and similarly, 50% additional compensation for employees where the wage revision of 1997 could not be made effective. The ex-gratia under VRS to employees following CDA pattern at 1986 scales has also been enhanced by 50% w.e.f 26.10.2004. These increases in VR compensation are to be computed based on the existing pay of the employees.

7.2.4 From the introduction of the Voluntary Retirement Scheme initially in October 1988 till March 2003, 4.87 lakh employees (approximate) have been released under VRS.

7.3 VRS IN CPSEs WHICH CAN SUSTAIN THEMSELVES

Enterprises, which are financially sound and can sustain VRS on their own can frame their own schemes of VRS and make it attractive enough for employees to opt for it. They may offer as compensation upto 60 days salary (only Basic Pay + DA) for

every completed year of service. However, such compensation will not exceed the salary for the balance period of service left.

7.4 VRS IN marginally PROFIT OR LOSS MAKING CPSEs

Marginally profit/ loss making CPSEs as well as sick and unviable units may adopt either (i) the Gujarat Model under which the compensation is computed by allowing 35 days salary for every completed year of service and 25 days for each year of the balance service left until superannuating subject to conditions that the compensation shall not exceed the sum of salary for the balance period left for superannuation or (ii) the VSS package of Department of Heavy Industry (DHI model) under which ex-gratia payment equivalent to 45 days emoluments (Pay + DA) for each completed year of service or the total emoluments for the balance period of service, whichever is less, is applicable. The VRS optees can opt for either of these two models.

8

Scheme of Counselling, Retraining & Redeployment

8.1 As a step towards providing a safety net for the rationalized employees of central PSEs, a Plan Scheme for Counselling, Retraining & Redeployment (CRR) is under implementation since 2001-2002. The CRR Scheme aims at reorienting the rationalized employees of CPSEs through short duration training programmes to enable them to adjust to the new



Shri Sontosh Mohan Dev MOS (Incharge) Heavy Industries & Public Enterprises addressing the delegates in a seminar on CRR in Hyderabad

environment and to adopt new avocations after their separation from the PSEs due to VRS/VSS or retrenchment due to closure of the enterprise. The strategy is to equip them with skills and impart a reorientation, which would enable them to be deployed mainly in self-employment activities.

8.2 For implementation of the CRR Scheme, nodal training agencies of repute have been selected across the country. Initially, when the scheme was introduced in the year 2001-02, there were 17 nodal agencies. Presently, there are 34 such agencies having 100 Employees Assistance Centres (EAC) located all over the country to meet the demand of training under the Scheme. Lists of nodal agencies and EACs are placed at Annexure V and VI respectively.

8.3 The plan allocation for implementation of the scheme, initially in the year 2001-02,



Minister of State (Incharge) Heavy Industries & Public Enterprises Sh. Sontosh Mohan Dev inaugurating the exhibition of products/services started by VR optees

- was Rs. 8 crore which during the years 2002-03 and 2003-04 was raised to Rs. 10 crores. 10% of the total fund is earmarked for NE Region as per present norm.
- 8.4 During 2001-02, 8064 persons were covered under the scheme against the physical target of 8000 while during 2002-03 and 2003-04, 12066 and 12200 rationalised employees were covered under the scheme against physical targets of 11900 and 12000 respectively.
- 8.5 A two days national Seminar on “Redeployment of Rationalised Employees of CPSEs: Strategies & Options” was held on 26th and 27th June, 2004, at National Institute of Small Industries Extension & Training (NISJET), Hyderabad, a nodal agency engaged to carry out the CRR Scheme. Representatives from various organizations including heads of various nodal agencies, CMDs of Hyderabad based CPSEs, state undertakings of Andhra Pradesh, financial institutions etc. attended the seminar. The seminar was inaugurated by Shri Sontosh Mohan Dev, Hon’ble Minister of State (Incharge) for Heavy Industries & Public Enterprises. He also inaugurated the exhibition of Products / Services started by successful rationalised employees after retraining. The exhibition represented a mix of units covering industry, service and business enterprises.
- 8.6 As three years of the scheme have been completed, need was felt to have an Efficacy Study to evaluate the impact of the scheme and to bring about further improvements. Accordingly, V. V. Giri National Labour Institute, Noida an autonomous organization under Ministry of Labour was engaged as consultant to undertake the efficacy study. The Institute has submitted the final report which is being examined in the Department.

9

Categorisation of PSEs

9.1 One of the roles assigned to the Department of Public Enterprises is to formulate policy guidelines on the Board structure of public enterprises and advise on the shape and size of organizational structure of PSEs. The Public Enterprises are categorized into four schedules namely 'A', 'B', 'C' & 'D'. The pay scales of chief executives and full time functional Directors of PSEs are linked with the schedule of the concerned enterprise. The Chief Executive of the enterprise is given the scale of pay attached to the schedule of the company while the functional Directors are allowed the scale of pay attached to the next below schedule. At times the posts of Chief Executives or functional Directors are upgraded on personal basis so that really capable executives are retained in the PSEs where they had rendered meritorious service. Such arrangements also help in attracting

talent to sick or high technology enterprises.

9.2 The initial categorization of PSEs, which was done in the mid-Sixties, was made on the basis of their importance to the economy and complexities of their problems. Over the years the Department of Public Enterprises has evolved norms for the purpose of categorization/ re-categorisation of PSEs. Categorisation is based on criteria such as quantitative factors like investment, capital employed, net sales, profit, number of employees and qualitative factors like national importance, complexity of problems, level of technology, prospects for expansion and diversification of activities and competition from other sectors, etc. In addition a criteria relating to the strategic importance of the corporation is also taken into account. The present

procedure involves consideration of the proposals in the administrative Ministry concerned and the Department of Public Enterprises which consults the Public Enterprises Selection Board. During 2004-05, 1 PSE has been categorised in schedule 'A', 1 in schedule 'B' and 1 in

schedule 'C'. 1 PSE has been upgraded from schedule 'B' to schedule 'A' and 1 PSE upgraded from schedule 'D' to schedule 'C'. At present, there are 52 Schedule 'A', 87 Schedule 'B', 54 Schedule 'C' and 7 Schedule 'D' PSEs. The schedule wise list of PSEs is given in Annex. –VII.

10

Implementation of Official Language Policy

- 10.1 Hindi Cell of this Department is primarily responsible for implementation of various provisions of the Official Language Act and the rules framed thereunder. Hindi Cell is also responsible for translation of documents required to be issued under Section 3(3) of the O.L. Act. As more than 80% of the staff of this Department know Hindi, the Department has been notified under rule 10(4) of the Official Language Rules, 1976.
- 10.2 All notification, resolutions, notices, circulars, papers laid on the Table of the Houses of Parliament etc., have been issued bilingually during the year 2004-2005. Efforts were also made to promote original correspondence in Hindi. The



Prize distribution function organised on the occasion of Hindi Pakhwada

- Official Language Implementation Committee of DPE continues to function under the Chairmanship of the Joint Secretary (PE) and four meetings of the said Committee were held during 2004-2005.
- 10.3 With a view to create consciousness and accelerating the use of Hindi as an Official Language, a Hindi Pakhawada, was organized by this Department in September, 2004. During this Pakhwada, various competitions such as, Elocution, Essay Writing, Noting & Drafting (Hindi Speaking), Noting & Drafting (Non-Hindi Speaking) and Hindi typing were organized for the officers and employees and prizes were distributed to the winners.
- 10.4 The Library of the Department has been purchasing Hindi books regularly. During the year 2004-2005 utmost efforts were made to achieve the targets prescribed by the Department of Official Language.
- 10.5 The Department has been presenting an Annual Report entitled "Public Enterprises Survey" on the working of Industrial and Commercial Undertakings of the Central Government in the Parliament every year during the Budget Session. This is a voluminous and comprehensive document brought out by the Department simultaneously in English and Hindi.

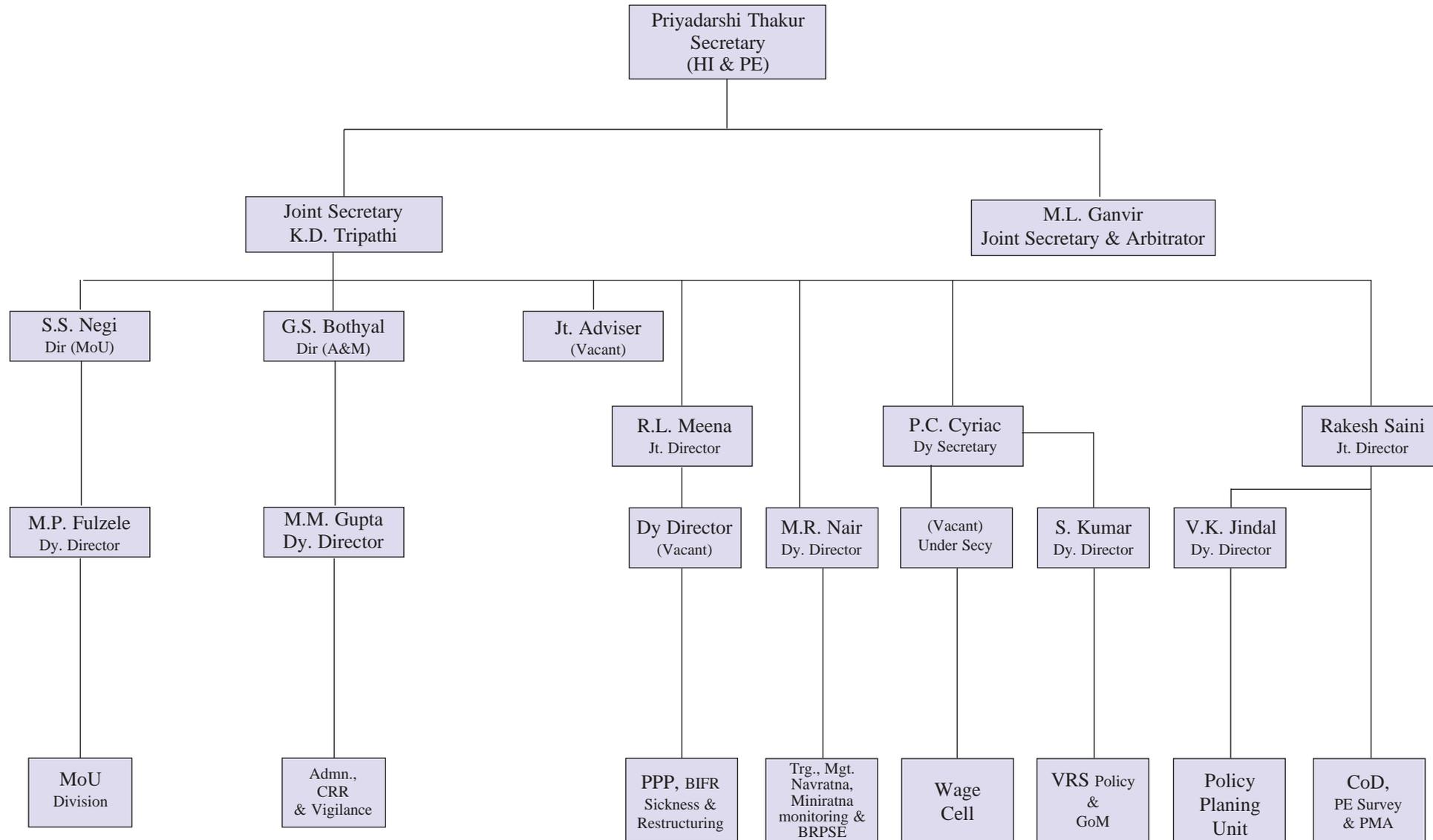
11

Welfare of Women

- 11.1 The principle of gender equality is enshrined in the Indian Constitution in its Preamble, Fundamental Rights, Fundamental Duties and Directive Principles. The Constitution not only grants equality to women, but also empowers the State to adopt measures of positive discrimination in favour of women. Within the framework of a democratic polity, our laws, development policies, plans and programmes have aimed at advancement of women in different spheres.
- 11.2 The Department has also set up a complaint committee under the Chairmanship of a lady officer to ensure fair, safe and healthy environment at work place for women. The guidelines laid down by the Supreme Court relating to sexual harassment have been brought to the notice of all those working in this Department. Department of Public Enterprises vide their OM dated 29th May 1998, has already issued detailed guidelines and norms to Chief Executives of PSEs for observance and prevention of sexual harassment of working women.
- 11.3 The Department of Public Enterprises is small in size having a total strength of 121 officers/staff, which includes about a dozen lady employees only. The Department acts as a nodal agency for all PSEs and assists in policy formulation pertaining to the role of PSEs in the economy. Department of Public Enterprises has no separate plan scheme for empowerment of women. However, the Department follows all the guidelines of the Government in this matter and all possible efforts have been made to create a healthy and congenial atmosphere so that women employees can perform duties with honour, dignity and without fear.

ORNOGRAM OF DEPARTMENT OF PUBLIC ENTERPRISES

Annexure-I



List of Miniratna PSEs

Miniratna PSEs - Category I

1. Bharat Dynamics Ltd.
2. Bharat Electronics Ltd.
3. Bongaigaon Refineries & Petrochemicals Ltd.
4. Central Warehousing Corporation
5. Chennai Petroleum Corporation Ltd.
6. Container Corporation of India Ltd.
7. Dredging Corporation of India Ltd.
8. Engineers India Ltd.
9. Fertilizers & Chemicals (Travancore) Ltd.
10. Hindustan Aeronautics Ltd.
11. Hindustan Newsprint Ltd.
12. Hindustan Organic Chemicals Ltd.
13. Housing and Urban Development Corp. Ltd.
14. India Tourism Development Corporation Ltd.
15. IRCON (International) Ltd.
16. Kochi Refineries Ltd.
17. Kudremukh Iron Ore Company Ltd.
18. M M T C Ltd.
19. National Aluminium Company Ltd.
20. National Fertilizers Ltd.
21. National Mineral Development Corporation Ltd.
22. Numaligarh Refinery Ltd.
23. Oil India Ltd.
24. Power Finance Corporation Ltd.
25. Power Grid Corporation of India Ltd.
26. Rashtriya Chemicals & Fertilizers Ltd.
27. Rural Electrification Corporation Ltd.
28. Shipping Corporation of India Ltd.
29. State Trading Corporation of India Ltd.
30. Telecommunications Consultants (India) Ltd.

Miniratna PSEs - Category II

31. Balmer Lawrie & Co. Ltd.
32. Educational Consultants (I) Ltd.
33. Ferro Scrap Nigam Ltd.
34. HMT (International) Ltd.
35. Hospital Services Consultancy Corporation (I) Ltd.
36. India Trade Promotion Organisation
37. Indian Medicines Pharmaceuticals Corporation Ltd.
38. MSTC Ltd.
39. Manganese Ore India Ltd.
40. MECON Ltd.
41. National Film Development Corporation Ltd.
42. P E C Ltd.
43. Rajasthan Electronics & Instruments Ltd.
44. RITES Ltd.
45. Water & Power Consultancy (India) Ltd.

List of PSEs Covered under the MoUs System for the Year 2004-05

S. No.	Name of the PSE	S. No.	Name of the PSE
1.	Air India Limited	35.	Handicrafts & Handlooms Export Corpn.
2.	Airports Authority of India	36.	Hindustan Latex Ltd.
3.	Artificial Limbs Manufacturing Corpn. of India Limited	37.	Hindustan Shipyard Limited
4.	Balmer Lawrie & Co. Ltd.	38.	HMT Ltd.
5.	Bharat Heavy Electricals Limited	39.	Hindustan Copper Ltd.
6.	Bharat Electronics Limited	40.	Hospital Services Consultancy Corp.
7.	Bharat Dynamics Ltd.	41.	Housing & Urban Dev. Corp.
8.	Bharat Sanchar Nigam Limited	42.	Indian Airlines Ltd.
9.	Brahmaputra Valley Fertilizer Corpn. Limited	43.	Indian Railway Catering & Tourism Corporation
10.	Bharat Earth Movers Ltd.	44.	Indian Oil Corpn.
11.	Bharat Petroleum Corpn. Ltd.	45.	Indian Rare Earth Ltd.
12.	Central Cottage Industries Corporation	46.	ITI Ltd.
13.	Central Warehousing Corpn.	47.	IRCON International Limited
14.	Central Electronics Ltd.	48.	Indian Railway Finance Corporation
15.	Coal India Ltd.	49.	Indian Trade Promotion Orgn.
16.	Cochin Shipyard Limited	50.	Indian Renewable Energy Dev. Agency
17.	Container Corpn. of India Ltd.	51.	Indian Tourism Dev. Corpn.
18.	Cotton Corporation of India Ltd.	52.	Karnataka Antibiotics & Pham. Ltd.
19.	Dredging Corpn. of India Ltd.	53.	Kudremukh Iron Ore Co. Ltd.
20.	Educational Consultants India Ltd.	54.	Konkan Railway Corpn. Limited
21.	Electronics Corporation of India Ltd.	55.	Mahanagar Telephone Nigam Limited
22.	Engineers India Ltd.	56.	Madras Fertilizers Ltd.
23.	Engineering Projects (International) Ltd.	57.	Manganese Ore India Ltd.
24.	Export Credit Guarantee Corp.	58.	Mazagon Dock Ltd.
25.	Ferro Scrap Nigam Ltd.	59.	MSTC Limited
26.	FACT Limited	60.	MMTC Limited
27.	Garden Reach Ship Build. & Engg.	61.	Mineral Exploration Corporation Ltd.
28.	GAIL India Ltd.	62.	Mishra Dhatu Nigam Ltd.
29.	Goa Shipyard Ltd.	63.	National Handloom Dev. Corpn. Ltd.
30.	Hindustan Aeronautics Ltd.	64.	National Building Const. Corpn. Ltd.
31.	Hindustan Paper Corporation Ltd.	65.	National Thermal Power Corpn.
32.	Hindustan Organic Chemicals Ltd.	66.	National Aluminium Co. Ltd.
33.	Hindustan Petroleum Corpn. Ltd.	67.	National Fertilizers Ltd.
34.	Hindustan Steelworks Construction Ltd.	68.	National Mineral Dev. Corpn.
		69.	National Research Dev. Corpn. of India

S. No. Name of the PSE

70. National SC Fin. & Development Corpn.
71. National BC Fin. & Dev. Corporation
72. National Minorities Finance & Development Corporation
73. National Hydro-Electric Power Corpn. Ltd.
74. National Film Development Corporation
75. National Small Industries Corporation
76. National Seeds Corporation Ltd.
77. Neyveli Lignite Corpn. Ltd.
78. North Eastern Electric Power Corpn.
79. Nuclear Power Corpn.
80. Oil India Limited
81. Oil and Natural Gas Corporation
82. Power Finance Corporation
83. Power Grid Corpn. of India Ltd.
84. PEC Ltd.
85. RITES Limited
86. Rashtriya Chemicals & Fertilizers Ltd.
87. Rajasthan Electronic & Instruments Ltd.

S. No. Name of the PSE

88. Rashtriya Ispat Nigam Ltd.
89. Rural Electrification Corpn.
90. Scooters India Limited
91. Sponge Iron India Ltd.
92. Shipping Corporation Ltd.
93. State Trading Corpn.
94. States Farms Corporation
95. Steel Authority of India Ltd.
96. Telecommunication Consultant of India Ltd.
97. Uranium Corporation of India Ltd.
98. Water & Power Consultancy Services Ltd.
99. Indian Medicine Pharmaceuticals Limited
100. Satluj Jal Vidyut Nigam Limited
101. MECON Limited
102. Broad Cast Engg. Consultants India Limited
103. Semiconductors Complex Limited

**List of PSEs Signing MOUs for the year 2003-04
and their MOU composite scores
based on provisional data**

S.No.	Name of PSE	MOU Score (as per DPE)	MOU Rating
1.	Air India	1.99	Very Good
2.	Airports Authority of India	1.33	Excellent
3.	Artificial Limbs Manufacturing Corpn. of India	1.36	Excellent
4.	Balmer Lawrie & Co. Ltd.	1.37	Excellent
5.	Bharat Dynamics Ltd.	3.24	Good
6.	Bharat Earth Movers Limited	1.84	Very Good
7.	Bharat Heavy Electricals Limited	1.12	Excellent
8.	Bharat Electronics Limited	1.07	Excellent
9.	Bharat Petroleum Corporation Ltd.	1.10	Excellent
10.	Central Warehousing Corporation	3.86	Fair
11.	Central Electronics Ltd.	2.86	Good
12.	Central Cottage Industries Corp. of India	3.42	Good
13.	Coal India Limited	1.41	Excellent
14.	Cochin Shipyard Limited	2.28	Very Good
15.	Cotton Corporation of India Ltd.	1.20	Excellent
16.	Container Corporation of India	1.08	Excellent
17.	Dredging Corporation of India	1.45	Excellent
18.	Educational Consultants India Ltd.	2.19	Very Good
19.	Electronics Corpn. of India Ltd.	1.33	Excellent
20.	Engineering Projects (India) Ltd.	3.37	Good
21.	Engineers India Ltd.	1.36	Excellent
22.	Export Credit Guarantee Corpn.	1.35	Excellent
23.	Ferro Scrap Nigam Ltd.	3.94	Good
24.	Fertilizers and Chemicals (T) Ltd.	3.87	Fair
25.	Goa Shipyard Ltd.	1.61	Very Good
26.	Garden Reach Shipbuilders & Eng. Ltd.	1.66	Very Good
27.	GAIL (India) Ltd.	1.00	Excellent
28.	Hindustan Paper Corporation	1.93	Very Good
29.	Hindustan Insecticides Ltd.	3.25	Good
30.	Hindustan Petroleum Corpn. Ltd	1.10	Excellent

S.No.	Name of PSE	MOU Score (as per DPE)	MOU Rating
31.	Hindustan Shipyard Limited	4.12	Fair
32.	Handicrafts & Handlooms Export Corpn.	2.57	Good
33.	Hindustan Organic Chemicals Ltd.	4.01	Fair
34.	Hindustan Aeronautics Ltd.	1.00	Excellent
35.	Hindustan Latex Ltd.	1.08	Excellent
36.	Hindustan Copper Ltd.	2.17	Very Good
37.	HSCC (India) Ltd.	1.28	Excellent
38.	Housing & Urban Dev. Corpn.	1.35	Excellent
39.	Hindustan Steelworks Construction Ltd.	3.40	Good
40.	India Trade Promotion Organisation	Adjustment	
41.	India Tourism Development Corpn.	1.57	Very Good
42.	Indian Airlines	1.92	Very Good
43.	Indian Oil Corporation Ltd.	1.02	Excellent
44.	Indian Renewable Energy Dev. Agency	3.43	Good
45.	Indian Rare Earth Ltd.	1.22	Excellent
46.	Indian Railway Finance Corpn.	1.00	Excellent
47.	IRCON International Ltd.	2.44	Very Good
48.	ITI Ltd.	4.10	Fair
49.	Indian Medicine Pharmaceuticals Corpn. Ltd.	1.93	Very Good
50.	Karnataka Antibiotics & Pharm. Ltd.	1.35	Excellent
51.	Kudremukh Iron Ore Co. Ltd.	1.05	Excellent
52.	Konkan Railway Corpn. Limited	2.22	Very Good
53.	Madras Fertilizers Ltd.	4.33	Fair
54.	Manganese Ore (India) Ltd.	1.14	Excellent
55.	Mazagoan Dock Ltd.	3.86	Fair
56.	MECON Ltd.	2.23	Very Good
57.	Mineral Exploration Corporation Ltd.	2.41	Very Good
58.	Mishra Dhatu Nigam Ltd.	1.41	Excellent
59.	MMTC Ltd.	1.29	Excellent
60.	Mahanagar Telephone Nigam Ltd.	1.87	Very Good
61.	MSTC Ltd.	1.38	Excellent
62.	National Hydroelectric Power Corpn.	1.12	Excellent
63.	National Thermal Power Corpn.	1.00	Excellent
64.	National Aluminium Co. Limited	1.47	Excellent
65.	National Small Industries Corpn.	3.31	Good

S.No.	Name of PSE	MOU Score (as per DPE)	MOU Rating
66.	National Building Const. Corpn.	1.22	Excellent
67.	National Seeds. Corpn.	2.04	Very Good
68.	National BC Fin. & Development Corpn.	1.04	Excellent
69.	National Mineral Dev. Corp.	1.70	Very Good
70.	National Film Development Corpn.	3.55	Fair
71.	National Fertilizers Ltd.	1.35	Excellent
72.	National Handloom Dev. Corpn.	1.63	Very Good
73.	National Minorities & Finance Dev. Corpn.	1.34	Excellent
74.	National Research Dev. Corp.	2.28	Very Good
75.	Neyveli Lignite Corpn.	1.30	Excellent
76.	North Eastern Electric Power Corpn.	1.44	Excellent
77.	Nuclear Power Corpn. Ltd.	1.28	Excellent
78.	Oil India Limited	1.20	Excellent
79.	Oil & Natural Gas Co. Ltd.	1.67	Very Good
80.	Power Finance Corpn. Ltd.	1.00	Excellent
81.	Power Grid Corpn. of India Ltd.	1.03	Excellent
82.	PEC Limited	1.04	Excellent
83.	RITES Limited	1.23	Excellent
84.	Rashtriya Chemicals & Fertilizers Ltd.	1.09	Excellent
85.	Rashtriya Ispat Nigam Ltd.	1.05	Excellent
86.	Rural Electrification Corpn.	1.00	Excellent
87.	Scooters India Ltd.	2.33	Very Good
88.	Semi Conductors Complex Ltd.	3.35	Good
89.	Shipping Corpn. of India Ltd.	1.20	Excellent
90.	Sponge Iron India Ltd.	1.37	Excellent
91.	State Trading Corpn. of India Ltd.	1.35	Excellent
92.	State Farms Corporation of India Ltd.	3.14	Good
93.	Steel Authority of India Ltd.	1.36	Excellent
94.	Telecommunication Consultant of (I) Ltd.	1.47	Excellent
95.	Uranium Corporation of India Ltd.	1.27	Excellent
96.	Water & Power Consultancy Ser. (I) Ltd.	1.41	Excellent

List of Selected Nodal Training Agencies

1. Associated Chamber of Commerce & Industry of India (ASSOCHAM), New Delhi
2. Central Institute of Plastic Engg. and Technology (CIPET), Chennai
3. CIPET, Bhubaneswar
4. CIPET, Hajipur
5. Central Leather Research Institute, Chennai
6. Centre for Development of Advanced Computing, Mohali, (Chandigarh)
7. CMC Ltd.
8. CMD, Trivendrum
9. Director General of Employment & Training, M/O Labour
10. Indian Council of Small Industries, Kolkata
11. Indian Institute of Entrepreneurship, Guwahati
12. Institute of Entrepreneurship Development, Patna
13. Institute of Labour Development, Jaipur
14. Kalinga Institute of Industrial Technology (KIIT), Bhubaneswar
15. Madhya Pradesh Consultancy Organisation, Bhopal
16. MITCON, Pune
17. National Institute of Small Industry Extension Training (NISIET), Hyderabad
18. National Productivity Council, New Delhi
19. National Small Industries Corpn Ltd., New Delhi
20. NIESBUD, Delhi
21. NITRA, Ghaziabad
22. Small Industries Service Institute, Bangalore
23. Small Industries Service Institute, Chennai
24. Small Industries Service Institute, Coimbatore
25. Small Industries Service Institute, Indore
26. Small Industries Service Institute, Kanpur
27. Small Industries Service Institute, Karnal
28. Small Industries Service Institute, Kolkata
29. Small Industries Service Institute, Mumbai
30. Small Industries Service Institute, New Delhi
31. Small Industries Service Institute, Patna
32. Small Industries Service Institute, Raipur
33. Small Industries Service Institute, Thrissur
34. U.P. Industrial Consultants Ltd., Kanpur

List of Employees Assistance Centres

S. No.	Name EAC	Nodal Agency	S. No.	Name EAC	Nodal Agency
1.	Allahabad	UPICO, Kanpur	38.	Goa	MITCON, Pune
2.	Asansol	CIPET, Bhubaneshwar	39.	Guwahati	IIE, Guwahati
3.	Aurangabad	NEISBUD, Delhi	40.		NPC, Delhi
4.	Bangalore	DGET, Delhi	41.	Hajipur	CIPET, Hajipur
5.		NPC, Delhi	42.	Haridwar	UPICO, Kanpur
6.		SISI, Bangalore	43.	Hooghly	NSIC, Delhi
7.		CMC, New Delhi	44.	Howrah	NSIC, Delhi
8.		NISIET, Hyderabad	45.		DGET, Delhi
9.	Beawer	ILD, Jaipur	46.	Hyderabad	NISIET, Hyderabad
10.	Bhilai	MPCON, Bhopal	47.		DGET, New Delhi
11.		KIIT, Bhubaneshwar	48.	Indore	SISI, Indore
12.	Bhiwadi (Alwar)	ILD, Jaunpur	49.	Jaipur	ILD, Jaipur
13.	Bhopal	MPCON, Bhopal	50.	Jamshedpur	ICSI, Kolkata
14.	Bhubaneshwar	KIIT, Bhubaneshwar	51.	Jodhpur	ILD, Jaipur
15.		CIPET, Bhubaneshwar	52.	Kanpur	UPICO, Kanpur
16.	Bokaro	ICSI, Kolkata	53.		ASSOCHAM, Delhi
17.		NSIC, Delhi	54.	Katni	MPCON, Bhopal
18.	Burnpur	NSIC, Delhi	55.	Kolar Gold Field/ Oorgaum	NPC, Delhi
19.	Chennai	SISI, Chennai	56.		DGET, New Delhi
20.		CIPET, Chennai	57.	Khetri	ILD, Jaipur
21.		CLRI, Chennai	58.	Kolkata	NSIC, Delhi
22.	Coimbatore	SISI, Coimbatore	59.		ICSI, Kolkata
23.	Chandrapur	MITCON, Pune	60.		CIPET, Bhubaneshwar
24.	Dehradun	UPICO, Kanpur	61.	Korba	MPCON, Bhopal
25.	Delhi	SISI, Delhi	62.	Kota	ILD, Jaipur
26.		NEISBUD, Delhi	63.	Lucknow	UPICO, Kanpur
27.		CMC, Delhi	64.		ASSOCHAM, Delhi
28.		NITRA, Delhi	65.	Mirzapur	UPICO, Kanpur
29.		NPC, Delhi	66.	Mohali	CDAC, Mohali
30.	Dhanbad	ICSI, Kolkata	67.	Mokahama	SISI, Patna
31.		NSIC, Kolkata	68.	Mumbai	SISI, Mumbai
32.	Durgapur	NSIC, Kolkata	69.		CMC Ltd., New Delhi
33.		ICSI, Kolkata	70.		MITCON, Pune
34.	Ganganagar	ILD, Jaipur	71.	Mysore	NPC, Delhi
35.	Ghaziabad	UPICO, Kanpur	72.		CIPET, Chennai
36.	Ghatshila	ICSI, Kolkata	73.	Nagpur	MITCON, Pune
37.		KIIT, Bhubaneshwar			

S. No.	Name EAC	Nodal Agency
74.	Nepanagar	MPCON, Bhopal
75.	Noida	CMC, Delhi
76.		NITRA, Delhi
77.	North 24 Pargana	ICSI, Kolkata
78.	Patna	SISI, Patna
79.		IED, Patna
80.	Pune	MITCON, Pune
81.	Rai Bareilly	UPICO, Kanpur
82.	Raipur	SISI, Raipur
83.	Rajnandgaon	SISI, Raipur
84.	Ramagundam	NISIET, Hyderabad
85.	Ranchi	NSIC, Delhi
86.		CMC, Delhi
87.		CIPET (Bhubaneshwar)

S. No.	Name EAC	Nodal Agency
88.	Rourkela	KIIT, Bhubaneshwar
89.	Saharanpur	UPICO, Kanpur
90.	South 24 Pargana	ICSI, Kolkata
91.	Surender Nagar	ILD, Jaipur
92.	Thrissur	SISI, Thrissur
93.	Trivendrum	CMD, Trivendrum
94.	Udaipur	ILD, Jaipur
95.	Ujjain	SISI, Indore
96.	Vadodara	MPCON, Bhopal
97.	Vizag	NISIET, Hyderabad
98.		ICSI, Kolkata
99.	Warangal	NISIET, Hyderabad
100.		ICSI, Kolkata

Schedule-wise list of Central Public Sector Undertakings

Schedule - A

1. Air India Ltd.
2. Airports Authority of India
3. Bharat Bhari Udyog Nigam Ltd.
4. Bharat Earth Movers Ltd.
5. Bharat Electronics Ltd.
6. Bharat Heavy Electricals Ltd.
7. Bharat Petroleum Corporation Ltd.
8. Bharat Sanchar Nigam Ltd.
9. Bharat Yantra Nigam Ltd.
10. Coal India Ltd.
11. Container Corporation of India Ltd.
12. Electronics Corporation of India Ltd.
13. Engineers India Ltd.
14. Fertilizers & Chemicals (Travancore) Ltd.
15. Food Corporation of India
16. GAIL (India) Ltd.
17. Heavy Engineering Corporation Ltd.
18. Hindustan Aeronautics Ltd.
19. Hindustan Copper Ltd.
20. Hindustan Petroleum Corporation Ltd.
21. HMT Ltd.
22. Housing & Urban Development Corporation Ltd.
23. I T I Ltd.
24. Indian Airlines Ltd.
25. Indian Oil Corporation Ltd.
26. Konkan Railway Corporation Ltd.
27. Kudremukh Iron Ore Company Ltd.
28. M M T C Ltd.
29. Mahanagar Telephone Nigam Ltd.
30. Mazagon Dock Ltd.
31. MECON Ltd.
32. Mumbai Rail Vikas Corporation Ltd.
33. National Aluminium Company Ltd.
34. National Fertilizers Ltd.
35. National Hydroelectric Power Corporation Ltd.
36. National Mineral Development Corporation Ltd.
37. National Textile Corporation (Holding Co.) Ltd.
38. National Thermal Power Corporation Ltd.
39. Neyveli Lignite Corporation Ltd.
40. Oil & Natural Gas Corporation Ltd.
41. Oil India Ltd.
42. Power Finance Corporation
43. Power Grid Corporation of India Ltd.
44. RailTel Corporation of India Ltd.
45. Rail Vikas Nigam Ltd.
46. Rashtriya Chemicals & Fertilizers Ltd.
47. Rashtriya Ispat Nigam Ltd.
48. Rural Electrification Corporation Ltd.
49. Shipping Corporation of India Ltd.
50. State Trading Corporation of India Ltd.
51. Steel Authority of India Ltd.
52. Telecommunications Consultants (India) Ltd.

Schedule - B

1. Andrew Yule & Company Ltd.
2. Balmer Lawrie & Company Ltd.
3. Bharat Coking Coal Ltd.
4. Bharat Dynamics Ltd.
5. Bharat Heavy Plate & Vessels Ltd.
6. Bharat Pumps & Compressors Ltd.
7. Bongaigaon Refinery & Petrochemicals Ltd.
8. Brahmaputra Valley Fertilizer Corporation Ltd.
9. Braithwaite & Company Ltd.
10. Braithwaite, Burn & Jessop Construction Ltd.
11. Bridge & Roof Company (India) Ltd.
12. British India Corporation Ltd.
13. Burn Standard Company Ltd.
14. Cement Corporation of India Ltd.
15. Central Coalfields Ltd.
16. Central Electronics Ltd.
17. Central Mine Planning & Design Institute Ltd.
18. Central Warehousing Corporation.
19. Chennai Petroleum Corporation Ltd.
20. Cochin Shipyard Ltd.
21. Cotton Corporation of India Ltd.
22. Dredging Corporation of India Ltd.
23. Eastern Coalfields Ltd.
24. Engineering Projects (International) Ltd.
25. Ennore Port Ltd.
26. Fertilizer Corporation of India Ltd.
27. Garden Reach Shipbuilders & Engineers Ltd.
28. Goa Shipyard Ltd.
29. Guru Gobind Singh Refineries Ltd.
30. Handicrafts & Handlooms Export Corporation India Ltd.
31. Hindustan Cables Ltd.
32. Hindustan Fertilizer Corporation Ltd.
33. Hindustan Organic Chemicals Ltd.
34. Hindustan Paper Corporation Ltd.
35. Hindustan Shipyard Ltd.
36. Hindustan Steel Works Construction Company Ltd.
37. Hindustan Vegetable Oils Corporation Ltd.
38. HMT (International) Ltd.
39. HMT Machine Tools Ltd.
40. HMT Watches Ltd.
41. IBP Co. Ltd.
42. India Tourism Development Corporation Ltd.
43. India Trade Promotion Organisation
44. Indian Drugs & Pharmaceuticals Ltd.
45. Indian Iron & Steel Company Ltd.
46. Indian Oil Blending Company Ltd.
47. Indian Railway Catering & Tourism Corporation Ltd.
48. Indian Railway Finance Corporation Ltd.
49. Indian Rare Earths Ltd.
50. Instrumentation Ltd.
51. IRCON International Ltd.
52. Kochi Refineries Ltd.
53. Madras Fertilizers Ltd.
54. Mahanadi Coalfields Ltd.
55. Manganese Ore (India) Ltd
56. Mangalore Refineries & Petro-Chemicals Ltd.
57. Mineral Exploration Corporation Ltd.

58. Mishra Dhatu Nigam Ltd.
59. National Building Construction Corporation Ltd.
60. National Jute Manufacturers Corporation Ltd.
61. National Projects Construction Corporation Ltd.
62. National Small Industries Corporation Ltd.
63. North Eastern Electric Power Corporation Ltd.
64. Northern Coalfields Ltd.
65. NTC (Andhra Pradesh, Karnataka, Kerala & Mahe) Ltd.
66. NTC (Delhi, Punjab & Rajasthan) Ltd.
67. NTC (Gujarat) Ltd.
68. NTC (Madhya Pradesh) Ltd.
69. NTC (Maharashtra North) Ltd.
70. NTC (South Maharashtra) Ltd.
71. NTC (Tamilnadu & Pondicherry) Ltd.
72. NTC (Uttar Pradesh) Ltd.
73. NTC (West Bengal, Assam, Bihar & Orissa) Ltd.
74. Numaligarh Refineries Ltd.
75. ONGC Videsh Ltd.
76. P E C Ltd.
77. Pawan Hans Helicopters Ltd.
78. Projects & Development India Ltd.
79. RITES Ltd.
80. Satluj Jal Vidyut Nigam Ltd.
81. Scooters India Ltd.
82. Semi-Conductor Complex Ltd.
83. South Eastern Coalfields Ltd.
84. Tehri Hydro Development Corporation Ltd.

85. Tyre Corporation of India Ltd.
86. Uranium Corporation of India Ltd.
87. Western Coalfields Ltd.

Schedule - C

1. Airlines Allied Services Ltd.
2. Andaman & Nicobar Islands Forest & Plant Development Corporation Ltd.
3. Artificial Limbs Mfg. Corporation of India
4. Bengal Chemicals & Pharmaceuticals Ltd.
5. Bengal Immunity Ltd.
6. Bharat Leather Corporation Ltd.
7. Bharat Ophthalmic Glass Ltd.
8. Bharat Refractories Ltd.
9. Bharat Wagon & Engineering Company Ltd.
10. Biecco Lawrie Ltd.
11. Broadcast Engineering Consultants India Ltd.
12. Central Cottage Industries Corporation of India Ltd.
13. Central Inland Water Transport Corporation Ltd.
14. Chinar Watches Ltd.
15. Educational Consultants (India) Ltd.
16. E T & T Ltd.
17. Ferro Scrap Nigam Ltd.
18. Hindustan Antibiotics Ltd.
19. Hindustan Insecticides Ltd.
20. Hindustan Latex Ltd.
21. Hindustan Newsprint Ltd.
22. Hindustan Photo Films Manufacturing Corporation Ltd.
23. Hindustan Salts Ltd.
24. HMT (Bearings) Ltd.

25. Hooghly Dock and Port Engineers Ltd.
26. Hotel Corporation of India Ltd.
27. Indian Renewable Energy Development Agency Ltd.
28. Jute Corporation of India Ltd.
29. M S T C Ltd.
30. Nagaland Pulp & Paper Company Ltd.
31. National Backward Classes Finance & Development Corporation.
32. National Film Development Corporation Ltd.
33. National Handicapped Finance & Development Corporation.
34. National Handlooms Development Corporation Ltd.
35. National Instruments Ltd.
36. National Minorities Development & Finance Corporation
37. National Research Development Corporation of India
38. National Safai Karamcharis Finance & Development Corporation
39. National SC Finance & Development Corporation
40. National ST Finance & Development Corporation
41. National Seeds Corporation Ltd.
42. NEPA Ltd.
43. North Eastern Handicrafts & Handloom Development Corporation Ltd.
44. North Eastern Regional Agricultural Marketing Corporation Ltd.
45. Praga Tools Ltd.
46. Rajasthan Electronics & Instruments Ltd.
47. Richardson & Cruddas (1972) Ltd.
48. Smith Stanistreet Pharmaceuticals Ltd.
49. Spices Trading Corporation Ltd.
50. Sponge Iron India Ltd.
51. State Farms Corporation of India Ltd.
52. Triveni Structural Ltd.
53. Tungabhadra Steel Products Ltd.
54. Water & Power Consultancy Services (India) Ltd.

Schedule - D

1. Hindustan Fluorocarbons Limited
2. Hindustan Prefab Ltd.
3. Indian Medicines Pharmaceutical Corporation Ltd.
4. Karnataka Antibiotics & Pharmaceuticals Ltd.
5. Orissa Drugs & Chemicals Ltd.
6. Rajasthan Drugs & Pharmaceuticals Ltd.
7. U.P. Drugs & Pharmaceuticals Ltd.