Annual Report 2002-2003

सत्यमेव जयते

Ministry of Heavy Industries and Public Enterprises

Government of India

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THE MINISTRY

The Ministry of Heavy Industries and Public Enterprises is responsible for promoting the development and growth of capital goods and engineering industry in the country and administratively dealing with 49 Central Public Sector Enterprises (PSEs) besides framing policy guidelines for Central PSEs. The Ministry comprises of the Department of Heavy Industry and the Department of Public Enterprises.

DEPARTMENT OF HEAVY INDUSTRY

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 49 Central PSEs. The Department of Heavy Industry is headed by a Secretary to the Government of India. He is assisted by a team of officers and staff of overall strength of 206. The Department is also supported by an Economic Adviser and an Integrated Finance Wing. The Public Sector Enterprises under the administrative control of this Department provide goods and services for almost all sectors of the economy, including power, rail and road transport etc. They also cater to 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.

The Department holds regular interaction with 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, technological collaboration and upgradation, and research & development, etc.

49 PSEs under the Department are engaged in manufacture of engineering/capital goods, consultancy and contracting activities. The total investment (Gross Block) in Public Sector Enterprises under the Department was about Rs.8234 crore as on 31st March, 2002, and the employment of 1.18 lakh persons. The computation of investment does not factor the nine PSEs which are closed. (Annexure I & II). The Department is also concerned with the affairs of Maruti Udyog Ltd., a joint sector company in the auto sector. The enterprises under the Department produce a wide range of products ranging from machine tools, industrial machinery, boilers, gas/steam/hydroturbines, turbo generators, railway traction equipments, pressure vessels, AC locomotives, prime movers, electrical equipment and agricultural tractors, consumer products such as watches, scooters, tyres and salts.

The Department also serves as an interface between its PSEs and other agencies of the Government and helps establish long term linkages with customers particularly in Telecommunication and Railways to improve their order book and ensure timely supplies to core sector customers.

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 viz. (i) to restructure and revive potentially viable PSEs; (ii) close down PSEs which cannot be revived; (iii) bring down Government equity in all non-strategic PSEs; and to protect the interest of the workers.

Joint venture formation is explored to enable PSEs to access technology, marketing and finance with a view to improve their long term viability.

The Department arranges 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 rationalisation.

Citizens Charter

Public Sector Enterprises function under the Indian Companies Act 1956, and the guidelines laid down by the Department of Public Enterprises.

The Department is committed to the goal of effective and responsive administration towards which following steps have been taken:

(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).

(ii) In an effort to computerize all matters in this Department, a Joint Secretary in this Department has been designated as IT manager who is also responsible for up-dating the web-sites of the Department periodically.

(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 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.

DEPARTMENT OF PUBLIC ENTERPRISES

The Department acts as the nodal agency for all Central PSEs and assists in the formulation of policy pertaining to performance improvement and evaluation, financial accounting, personnel management and in related areas. DPE also collects, evaluates and maintains information on key areas in respect of PSEs. In fulfilling its role, DPE coordinates with other ministries and organizations.

The important role and tasks of the Department are listed below:

i) Performance improvement and evaluation, financial management, personnel management, Board structures, wage settlement, training, industrial relation, vigilance, performance appraisal, etc.

ii) General policy relating to Public Sector.

iii) Matters relating to issue of Presidential Directives and guidelines to Public Sector Enterprises.

iv) Matters relating to reservation of posts in the public sector enterprises for certain classes of citizens.

v) Matters relating to Memorandum of Understanding between the Public Sector Enterprises and the administrative Ministries/Departments.

vi) Matters relating to delegation of powers to Board of Directors.

vii) To undertake in-depth studies in respect of significant areas of functioning of Central PSEs.

viii) Matters relating to International Centre for Promotion of Enterprises (ICPE)

ix) To monitor and evaluate the performance of PSEs and to act as a repository of data and

to bring out an Annual Survey for submission to Parliament.

x) Permanent Machinery of Arbitration for resolving commercial disputes except relating to taxation and Railways between Public Sector Enterprises inter-se as well as between a PSE and a Central Government Department/Ministry.

xi) Matters relating to counseling, re-training and re-deployment of rationalized employees of Central PSEs.

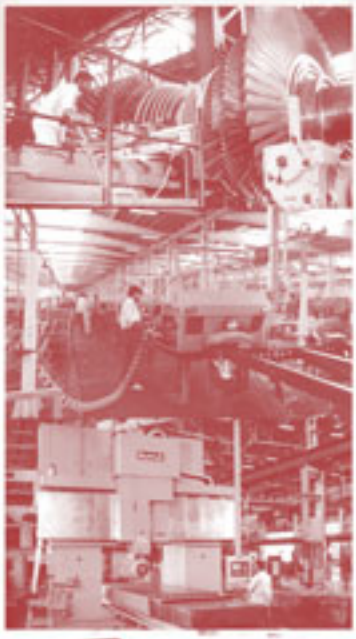
The Department is headed by a Secretary who is assisted by an establishment with an overall sanctioned strength of 121 personnel. An organogram is given at Annex.-I.

The Department has five constituent Divisions: the Financial Policy Division, the Management Policy Division, the MOU Division, the Administration & Coordination Division and Permanent Machinery of Arbitration.

- The Financial Policy Division comprises the Public Enterprises Survey Unit, the Policy Planning Unit, Counseling, Re-training and Re-deployment Unit and the Wage Policy Unit.
- The Management Policy Division comprises the Personnel Policy Unit, Training Unit, Performance Indicator and Work Norms Unit(PIWNU) and SC & ST Cell.
- The MOU Division comprises MOU Unit, Data Bank and Computer Cell.
- Administration & Coordination Division comprises the Administration, Library, Parliament and Coordination Wings and Hindi Cell.
- The Permanent Machinery of Arbitration (PMA) provides a forum for settlement of commercial disputes between two or more PSEs as well as between a Government Department and PSEs.

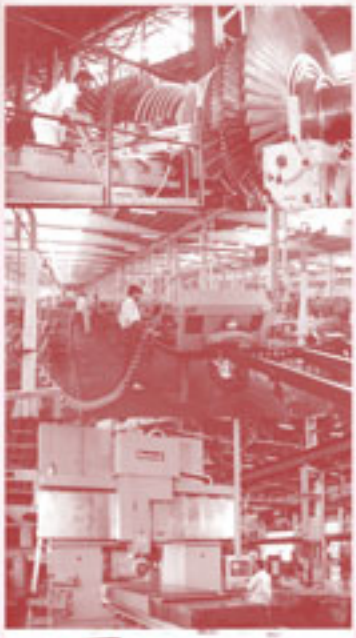
Department of Heavy Industry

C O N T E N T S



Department of Public Enterprises

C O N T E N T S



Department of Heavy Industry

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

INDUSTRIAL SCENARIO

- Indian industry has shown remarkable recovery since the beginning of the current fiscal year (2002-03), registering a growth of 5.3 per cent during first nine months of the current fiscal year compared to a growth of 2.5 per cent recorded during the corresponding period of last year.

- In contrast to the performance last year, the use-based classification of industries reveals good performance of all the sectors viz. basic goods, capital goods, intermediate goods and the consumer goods. Basic goods, capital goods, intermediate goods and consumer goods registered growth rates of 4.7 per cent, 9.9 per cent, 2.6 percent and 7.3 percent respectively during April-November 2002-03 as against 2.0 percent, -4.9 percent, 2.1 percent and 5.8 percent respectively registered for the corresponding period last year. Of consumer goods, the consumer durables registered a negative growth of -6 per cent during April-November 2002-03 as against 12.9 percent in April-November 2001-02. On the other hand, consumer non-durables posted a growth of 12.7 percent during April-November 2002-03 as against 3.2 percent in April-November 2001-02.

- Production, and growth rates in some of the industries being dealt by the Department during the period April-November, 2002-03 as compared to April-November, 2001-02 are given below:-

	Unit	Production		Growth Rate
		April-Nov. 2001-02	April-Nov. 2002-03	(%)
Industrial Machinery	Rs.in crore	1190.56	1234.74	3.7
Machine tools	Rs.in crore	910.76	1421.53	56.1
Boilers	Rs.in crore	981.10	1448.37	47.6
Turbines (Steam/Hydro)	Rs.in crore	355.01	336.78	-5.1
Electric Generators	Rs.in crore	255.36	471.90	84.4
Power & Distribution Transformers	Million KVA	41.71	47.98	15.0
Telecommunication Cables	Million Kms.	213.09	140.77	-33.9
Commercial Vehicles	Nos.	86666	121049	39.7
Passenger Cars	Nos.	358175	367567	2.6

- The Government have taken several policy initiatives to boost industrial production in the country. These measures have been targeted to improve competitiveness by providing a better operating environment for the industry.

The 'auto industry' which is the engine of the growth, has made tremendous improvement in terms of production and technology during the last

Hon'ble Minister of Heavy Industries & Public Enterprises Shri Balasaheb Vikhe Patil with His Excellency Mr. Jiri Rusnok, Minister of Trade and Industry, Czech Republic and leader of the Czech delegation to India

few years. The turnover of the auto industry has continuously been on the rise and reached a level of about Rs.82,000 crore in 2001-2002. The industry employs 4.5 lakhs people directly and more than 1 crore people indirectly. Indian Automotive Industry is now inhabited by almost all global players.

An Auto Policy has been approved by the Government for further development and growth of Auto Sector in terms of both qualititative and quantitative terms . The Department has also drawn up a long term plan for setting up of testing and certification facilities for the auto industry to enable the industry to meet environmental regulation and safety norms. The plan is to set up such centres in different parts of the country with an investment of about Rs.1500 crore.

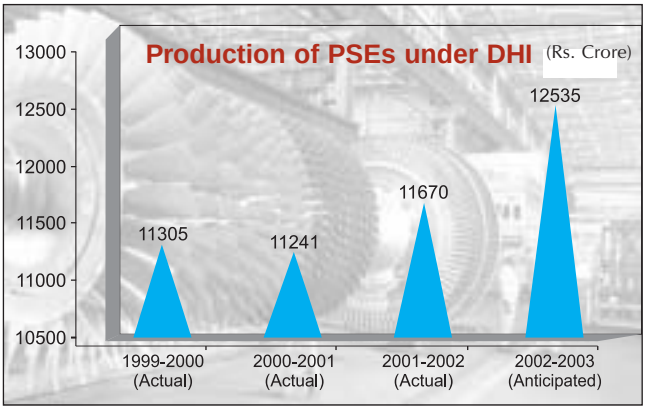
PSEs UNDER THE DEPARTMENT OF HEAVY INDUSTRY

The PSEs under the Department are engaged in manufacturing, consultancy and contracting activities. Out of 49 PSEs, 13 made profits in 2001-2002 and remaining 36 made losses. 9 PSEs have since been closed/wound up. The aggregate performance of remaining 40 PSEs has been as under :

(Rupees in crore)

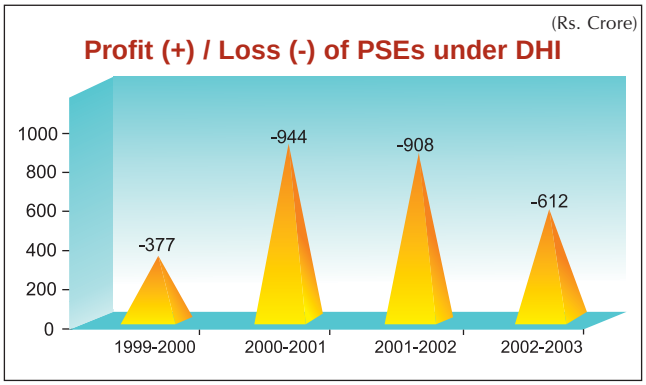
	2001-2002 (Actual)	2002-2003 (Anticipated)
Production	11670	12535
Profit(+)/Loss(-)	(-)908	(-)612

The loss is attributed to shortfall in production in some major enterprises owing to decline in demand, shortage of working capital, surplus manpower, obsolete plant and machinery, besides increase in the cost of inputs etc. Government provided assistance of Rs.486 crore for rationalisation of manpower and Rs.39 crore as plan investment to improve productivity during the year 2001-2002.



Details of production, profit/loss, order book and exports are given in Annexure – III, IV, VI & VII.

Salary/Wage bill and social overheads as percentage of turnover is given at Annexure – V. Equity, networth & accumulated profit(+)/loss(-) for PSEs of Department of Heavy Industry is placed at Annexure – VIII.



STRATEGIES FOR RESTRUCTURING OF PSEs UNDER DEPARTMENT OF HEAVY INDUSTRY

Strategies for restructuring the PSEs aim at revival of potentially viable PSEs, closing down PSEs which cannot be revived, bring down Government equity in all non-strategic PSEs to 26% or lower, if necessary, and fully protect the interests of the workers. In this process, following actions for restructuring of PSEs are in hand;

- Revival of PSEs through the BIFR;
- Financial Restructuring wherever appropriate;
- Joint Venture formation to have continuous access to technology, finance, marketing, management etc.;
- Manpower rationalisation

PSEs REFERRED TO BIFR

Out of 49 PSEs, 29 have been referred to BIFR. BIFR sanctioned revival schemes in case of 12 PSEs which involved fresh infusion of funds by Government of India to the extent of Rs.654 crore and financial restructuring of Rs.2103 crore. 3 restructuring plans in case of following 7 PSEs. The restructuring plans include financial, business and organisational restructuring involving fresh infusion of Rs.531 crore and financial restructuring of Rs.1443 crore.

The present status of the 29 PSEs referred to BIFR is given below :

(i) Cases where BIFR has sanctioned scheme for revival (Excluding 3 cases of winding up)	**9**	
	(i)	Bharat Pumps & Compressors Ltd.
	(ii)	Triveni Structurals Ltd.,
	(iii)	Richardson & Cruddas Ltd.
	(iv)	Braithwaite & Co.Ltd.
	(v)	Heavy Engineering Corpn.,
	(vi)	Scooters India Ltd. *
	(vii)	Jessop & Co.
	(viii)	Instrumentation Ltd.
	(ix)	Burn Standard Co.Ltd.
(ii) Cases where BIFR has recommended winding up.	**11**	
	(i)	National Bicycle Corpn. of India Ltd.
	(ii)	Tannery & Footwear Corpn. of India Ltd.
	(iii)	Weighbird India Ltd.
	(iv)	Bharat Process and Mechanical Engineers Ltd.
	(v)	Cycle Corpn. of India Ltd.
	(vi)	Mining & Allied Machinery Corpn. Ltd.
	(vii)	Nagaland Pulp & Paper Mills Ltd.
	(viii)	Bharat Brakes & Valves Ltd.
	(ix)	RBL Ltd.
	(x)	National Instruments Ltd.
	(xi)	Hindustan Photo Films Manufacturing Co. Ltd.
(iii) Cases Under process	**9**	
	(i)	Tyre Corpn. of India Ltd.
	(ii)	Cement Corpn. of India Ltd.
	(iii)	Nepa Ltd.
	(iv)	Praga Tools Ltd.
	(v)	Hindustan Salts Ltd.
	(vi)	Bharat Opthalmic Glass Ltd.
	(vii)	Bharat Wagon Engg. Co.Ltd.
	(viii)	Hindustan Cable Ltd.
	(ix)	Andrew Yule & Co.Ltd.

* The revival plan of Scooters India Ltd. has been successful and the PSE has been posting profits for the last few years and has thus come out of the purview of BIFR.

PSEs where revival schemes failed have since been recommended for winding up. These PSEs are Bharat Brakes & Valves Ltd. (BBVL) National Instruments Ltd. (NIL) and RBL Ltd. (RBL).

RESTRUCTURING OF OTHER PSEs

Apart from revival plans sanctioned by BIFR, Government on its own have approved

(i) Hindustan Cables Ltd. (HCL)

(ii) Andrew Yule & Co.Ltd. (AY & Co.)

(iii) Nepa Ltd. (Nepa)

(iv) Hindustan Paper Corporation Ltd. (HPC)

(v) Praga Tools Ltd. (PTL)

(vi) HMT Ltd. (HMT)

(vii) Engineering Projects (India) Ltd. (EPI)

JOINT VENTURE FORMATION / DISINVESTMENT

Some of the restructuring initiatives already taken include;

- Sale of Damodhar Cement & Slag Ltd., a subsidiary of Cement Corporation of India Ltd. (CCI) to M/s Associate Cements Co Ltd. (ACC) in 1996.
- Sale of Yerraguntla Plant of CCI to India Cements Ltd. in 1998.
- Conversion of Belting Division of Andrew Yule & Co. (AY & Co.) 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 AY & Co.
- 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.
- 28 PSEs have been taken up for disinvestment/ JV formation out of which 16 cases are being dealt in the Ministry of Disinvestment and remaining 12 subsidiary PSEs are being dealt in the Department of Heavy Industry.

Manpower Rationalisation

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 70,000 employees have opted for VRS during the last ten years period 1992-1993 to 2001-2002 involving an expenditure of about Rs.1700 crore. The Department has also been encouraging issue of bonds by PSEs to the FIs/ Banks/Institutions/Public against Government guarantee for meeting the expenditure on VRS for which interest subsidy is also being provided by Government.

INTRODUCTION OF VOLUNTARY SEPARATION SCHEME (VSS) FOR EMPLOYEES OF SICK/UNVIABLE PSEs:

Government have been supporting viable and credible revival plans. There are some PSEs which were considered unviable by BIFR/Expert Agency. Permission of the Appropriate Authority was obtained and following PSEs have been closed :

(i) Bharat Process Mechanical Engineers Ltd. (BPME)

(ii) Weighbird India Ltd. (WIL)

(iii) Tannery & Footwear Corpn. Ltd. (TAFCO)

(iv) Rehabilitation Industries Corp. (RIC)

(v) National Bicycle Corpn. of India Ltd. (NBCIL)

(vi) Mining and Allied Machinery Corpn. Ltd. (MAMC)

(vii) Cycle Corporation of India (CCIL)

Besides the seven 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 to the permission granted by the Appropriate Authority.

In addition, winding up has been recommended by the BIFR in respect of Bharat Brakes & Valves Ltd. (BBVL) and RBL Ltd. (RBL)

Government introduced a Voluntary Separation Scheme (VSS), providing benefits equivalent to VRS, in order to minimise hardship to the employees of these PSEs. Benefits under VSS are much higher than the compensation under the ID Act. A total amount of Rs.572 crore has been provided by the Government since the introduction of VSS in 1998-99 to 2001-02 as

100 MW Gas Turbine-based Power Plant commissioned by BHEL on turnkey basis, at Baghabari, Bangladesh

budgetary support for separation of about 9000 employees.

Autonomy to PSEs/Navratnas and Miniratnas

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

Memorandum of Understanding (MoU)

With a view to giving greater autonomy to the public sector enterprises, at the same time making them accountable for achievement of their objectives, for the year 2002-2003 MoU was signed by following 8 PSEs, with Government of India.

1. Bharat Heavy Electricals Limited.
2. Bharat Bhari Udyog Nigam Limited (Holding Company)

   Subsidiaries

   (i) Burn Standard Company Limited.
   (ii) Jessop & Company Limited.
   (iii) Braithwaite & Company Ltd.
   (iv) Bharat Wagon & Engineering Co. Limited.
   (v) Braithwaite Burn & Jessop Construction Co. Limited.
3. Bharat Yantra Nigam Limtied (Holding company)

   Subsidiaries

   (i) Bharat Heavy Plate & Vessels Limited.
   (ii) Bharat Pumps & Compressors Limited.
   (iii) Richardson & Cruddas (1972) Limited.
   (iv) Triveni Structurals Limited.
   (v) Tungabhadra Steel Products Limited.
   (vi) Bridge & Roof Co. (India) Limited.
4. Hindustan Cables Limited.
5. Andrew Yule & Company Limited.
6. Engineering Projects (India) Limited.
7. HMT Limited (Holding Company)

   Subsidiaries

   (i) HMT Machine Tools Limited
   (ii) HMT Watches Limited.
   (iii) HMT Chinar Watches Limited
8. Hindustan Paper Corporation Limited.

   Subsidiary

   (i) Hindustan Newsprint Limited.

Some of the companies which have signed MoU with Government are holding companies having number of subsidiary companies as mentioned above. Inclusive of subsidiary companies, 21 PSEs have been brought under MoU during 2002-2003, out of total 49 PSEs.

NORTH EASTERN REGION

Out of the 49 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.

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 capital investments made in the North East Region during the last three years i.e. 1999-2000, 2000-2001 and 2001-2002 have been of the order of Rs.21.50 crore, Rs. 4.50 crore and Rs.7.12 crore respectively.

Highlights

1. Union Minister of Heavy Industries & Public Enterprises took a meeting of the CEOs of the Capital Goods Industry, which has been witnessing decline in production over the last two years. The industry representatives highlighted various issues affecting their sectors and sought Government intervention in the matter.

2. The Minister of Heavy Industries & Public Enterprises reviewed the performance of major PSEs under the Department of Heavy Industry in May 2002 and advised the Chief Executives to take steps to improve their performance to match global standards.

3. During interaction with the representatives of various Industrial Associations & CEOs of PSEs, there was a demand for setting up a Task Force with a view to identify export markets for capital goods and to overcome the impediments in the growth of this Sector. Accordingly, Department of Heavy Industry constituted an Inter-Ministerial Committee to co-ordinate matters related to development and growth of Capital Goods Industry and a Task Force on Export of Capital Goods.

4. Manpower rationalisation was given emphasis during this year to improve the viability of the PSE's and reduce the burden of payments of salaries on the exchequer and make the PSEs attractive for disinvestment / JV formation. More than 21,000 employees of the PSEs under Department of Heavy Industry availed the benefit of VRS/VSS during 2001-2002 as compared to about 12,500 employees in 2000-2001. Government provided a budgetary support of Rs.762 crore including statutory dues during 2001-2002 as compared to Rs.636 crore in 2000-2001. In the current year 2002-2003 an amount of Rs. 400 crore is likely to be spent for this purpose.

5. A National Workshop on Counselling, Retraining and Redeployment was organised on 26.11.2002 to review the progress on training and redeployment of rationalized employees of Central Public Sector Enterprises.

Hon'ble Minister of Heavy Industries & Public Enterprises Shri Balasaheb Vikhe Patil at HMT's Bangalore Plant

6. UNDP Project on Corporate Restructuring was completed and the Terminal Report was approved by the Project Steering Committee chaired by Secretary (Heavy Industries & Public Enterprises).

7. Conference of Chief Executive Officers of PSEs under Department of Heavy Industry.

   A Conference of Chief Executive Officers of PSEs under Department of Heavy Industry was organized on 9 October, 2002 in New Delhi. Some of the core issues

of prime concern like Emerging Strategies for Globalization/Exports; Manpower Rationalization; Disposal of assets of closed PSEs; Management initiatives for improving the competitiveness in open market environment and internalization of Memorandum of Understanding (MoU) were discussed. As a consequence, a Committee was set up to identify the opportunities for PSEs of Department of Heavy Industry in the domestic and global arena in the current business environment and to pool together the synergies and experiences for improving their performance.

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

(i) BHEL successfully concluded the maiden issuance of Non-Convertible, Secured, Redeemable Taxable Bonds of Rs.300 crore with an option to retain over subscription upto Rs.200 crore through private placement and through the book building process. The issue mobilised Rs.980 crore against which BHEL has retained Rs.500 crore (including over subscription of Rs.200 crore) at a coupon rate of 8.85%.

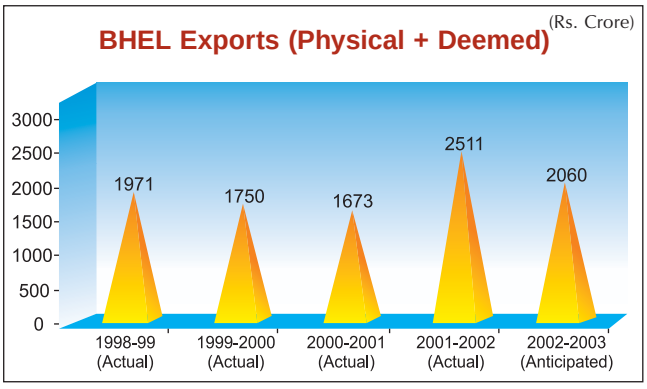
(ii) BHEL has achieved a major landmark with the successful commissioning of the first ever 124 MW ISO rated Gas Turbine based power plant for Bangladesh Power Development Board in Baghabari, Bangladesh on turn-key basis.

(iii) BHEL bagged an order for a highly efficient eco-friendly Advance Class Gas Turbine for a power project in Tamil Nadu. The 101 MW Combined Cycle Power Plant, valued at Rs.291 crore will be set up on EPC basis for Tamil Nadu Electricity Board at Kuttalam in Tamil Nadu and is schedule for completion in 21 months' time.

(iv) BHEL commissioned 33 kV Grid Substation for Delhi Vidyut Board (DVB) at Krishna Nagar in East Delhi. With the commissioning of this substation, East Delhi will get around 40 MW of additional power.

(v) BHEL created a new benchmark in the turnkey execution of mega Greenfield projects with the synchronization, ahead of schedule, of the first 500 MW unit at Simhadri Thermal Power Project in just 39 months. With the setting up of Simhadri TPS (2x500 MW), power availability in Andhra Pradesh will improve considerably as the entire power generated will be supplied to the state.

(vi) BHEL secured a major order for setting up an energy efficient & environment friendly co-generation power plant in Tamil Nadu. Reposing confidence in BHEL's capability, Chennai Petroleum Corporation Ltd. (CPCL) has placed an order worth about Rs.174 crore for a 40 MW gas based co-generation power plant for its refinery expansion project at Chennai.



(vii) For the sixteenth year in succession, since inception, employees of BHEL have won the Prime Minister's 'Shram Awards' – the country's highest honour bestowed on individual for outstanding achievements leading to higher productivity , improved quality, greater safety and foreign exchange savings.

(viii) BHEL and ONGC entered into a Memorandum of Understanding (MOU) for supply, upgradation and refurbishment of oilfield equipment used by ONGC for onshore & offshore applications.

(ix) BHEL has been awarded prestigious 'Rajiv Gandhi National Quality Award" instituted by 'Bureau of Indian Standard' (BIS) in the 'Large Service Enterprises' category. The award is for achieving excellence in quality conforming to global standards.

(x) BHEL signed a Technical Collaboration Agreement with M/s. Turbo Lufftechnik, GmbH (TLT), Germany, for acquiring technology for design and manufacture of Variable Pitch Axial Flow to meet emerging requirement of 660 MW supercritical power plants.

(xi) BHEL bagged an Export order worth Rs.267 crore for a 140 MW Gas Turbine based turnkey power plant in the Sultanate of Oman.

(xii) BHEL successfully commissioned its first ever state-of-art Vessel Traffic Management System at the New Mangalore Port Trust.

(xiii) BHEL bagged NHPC's order for setting up a first Mega Hydro Electric Project (HEP) of 800 MW capacity valued at nearly Rs.355 crore for Parbati HEP located at Sainj in Kullu District (Himachal Pradesh) by outbidding leading multinational giants.

Shri K. Shivadas of BHEL, receiving Shram Bhushan Award from Hon'ble Prime Minister, Shri Atal Bihari Vajpayee

9. Engineering Projects (India) Ltd. (EPI) has been awarded the upgradated ISO 9001:2000 certification which covers all areas of operations of EPI as against specific areas covered in respect of most other companies.

10. EPI achieved the highest ever turnover of Rs.396.81 crore during 2001-2002, showing a growth rate of 86.72% over the turnover of Rs.212.52 crore achieved during last year. The company booked orders worth Rs.595.56 crore during 2001-02, which is 91.36% more than last year's booking of Rs.311.23 crore.

11. EPI secured the following orders :

    (i) Three projects valuing Rs.71.15 crore, for construction of 400 HIG houses at Dwarka, New Delhi and Civil & Structural Works for CPCL Refinery-III Expansion Project, Chennai and setting up GCS at Kovilkallpal, Tamil Nadu.

    (ii) Projects valued at around Rs.95 crore for providing W.S. and Sewage facilities in Bangalore and construction of houses in Vasant Kunj by DDA etc.

12. EPI is among the top ten Public Enterprises who have been awarded Merit Certificate for excellence for achievement of MOU targets for the year 2000-2001.

13. EPI was felicitated by the Gujarat Water Supply & Sewerage Board for timely completion of Tankara-Gauridad Bulk Water Pipeline Project (Distt. Rajkot); the award was conferred by Shri Narendra Modi, Hon'ble Chief Minister of Gujarat.

14. The price bids for sale of 72% equity of Jessop & Co. Ltd. (Jessop) was approved by the Government as a part of the disinvestment exercise.

15. The Government has signed a revised Joint Venture agreement with Suzuki Motor Corporation, Japan (SMC) , allowing SMC to raise its equity from 50% to 54.2%, after paying the price for rights issue, as well as the control premium amounting to Rs.1000 crore.

16. Instrumentation Ltd. (ILK) have brought down their manpower strength from 2122 to 1995 through voluntary retirement and have closed its unviable site at Bokaro with a view to reduce the overall expenditure. The company had been able to book order worth Rs.16.73 crore including Rs.12.21 crore order for Telecom exchanges from BSNL against reservation.

17. Hindustan Newsprint Ltd. (HNL), Newsprint Nagar, Distt. Kottayam, Kerala has commissioned its 100 TPD De-inking Plant costing Rs.52.20 cr. on 11th December, 2002 as per schedule without any cost and time over-run.

18. The Salem Unit of Burn Standard Company Ltd. was give 'CAPEXIL' Award for 2001-2002 in November 2002 for excellent export performance in ceramic products.

19. Scooters India Ltd (SIL) was awarded the Greentech Environment Excellence Silver Medal 2001-2002 by the Greentech Foundation, New Delhi for its environmental initiatives and achievements.

Individual Public Sector Enterprises

ANDREW YULE & CO. LTD.

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 has become sick and has been referred to BIFR recently. The Andrew Yule Group includes a subsidiary, M/s Hooghly Printing Company, and two major associate companies namely Dishergarh Power Supply Company and Tide Water Oil Company. As a part of restructuring programme, 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 M/s A Y & Co. holding 26% of the equity in the new company. Andrew Yule is likely to end the year 2002-2003 with a production of Rs.139 crore. A comprehensive restructuring of the company including its subsidiaries and associate companies is contemplated.

HOOGHLY 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 2002-2003 is anticipated at Rs.7.50 crore. Process of disinvestment / Joint Venture formation has already been initiated for which necessary approvals are being obtained.

BHARAT HEAVY ELECTRICALS LTD.

The company was established for specially catering to the power generation and distribution 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 'Navratna' PSE. BHEL's performance in 2001-2002 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, Gas turbines, AC Locos, Ceralin Insulators, Turret Castings, Desalination plants, etc

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 2002-2003 with a turnover of Rs. 7600 crore.

Simhadri Thermal Power Station in Andhra Pradesh, setup by BHEL

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 :

1. Burn Standard Company Ltd.

   Subsidiaries :

   (i) Bharat Brakes & Valves Ltd. (BBVL)*
   (ii) RBL Ltd. (RBL)*

2. Jessop & Company Ltd.
3. Bharat Wagon & Engineering Company Ltd.
4. Braithwaite & Company Ltd.
5. Bharat Process & Mechanical Engineering Ltd (since closed)

   Subsidiary :

   (i) Weighbird (India) Ltd. (WIL) (Since closed)

6. Braithwaite, Burn & Jessop Construction Co. Ltd.

The aggregate production of all the operating subsidiaries of the holding company is anticipated to be Rs.482 crore in 2002-2003.

*BIFR has recommended for winding up of the company.

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 became sick and is under reference to BIFR. A revival plan sanctioned by BIFR is under implementation. 7 loss making refractory units and Jellinghum Yard of the company have been closed following the permission granted by the Appropriate Authority.

Government are exploring the possibility of joint venture formation/disinvestment of the company. The production of the company during the year 2002-03 is likely to be Rs.204.82 crore.

JESSOP & COMPANY LTD.

Jessop & Company Ltd. was taken over by the Government in 1973.

The company is engaged in design and manufacture of a diversified range of products viz. Railway Rolling Stock, Earth Moving Equipment, a wide range of Cranes, Structural Fabrication, Hydraulic Gates, Paper Machinery etc. The company became sick and was referred to BIFR. As per the revival plan sanctioned by BIFR, Government has released Rs.43 crore. as fresh infusion of funds and carried out financial restructuring of Rs.141 crore. However, the performance of the company did not improve. Government have approved a proposal of a private company for transfer of 72% equity and the same has also been cleared by the BIFR in September, 2002 for revival of the PSE. However, against a writ petition filed by workers and other unions the decision of High Court of Kolkata is awaited.The production of the company during 2001-02 is anticipated to be Rs.64 crore.

BRAITHWAITE & COMPANY

Consequent upon nationalization, the company was taken over by Government in December 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 became sick and was referred to BIFR. A revival scheme sanctioned by BIFR is under implementation. As per the revival plan, Government has released Rs.26.68 cr. and carried out financial restructuring of Rs.144 crore. Government is exploring the possibility of divestment/ joint venture formation for which expression of interest (EOIs) has been invited by Advisers. The production of the company during the year 2002-2003 is anticipated to be Rs 99.88 crore.

150 MT Capacity 'LPG' Bullets at Malda, manufactured and supplied by Braithwaite

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 December, 1979. The main products of the company are Railway Wagons, screw pile bridges, steel fabrications, Grey Iron Castings etc. Efforts are being made by the company to diversify and develop other product lines like oil tanks and other structural fabrication and erection work at project sites, to reduce dependence on wagon orders. The company has been referred to BIFR as it has become sick. Government are exploring the possibility of Joint Venture formation/ disinvestment. Expression of Interest (EOIs)have been invited by Advisers. The production of the company during 2001-2002 is anticipated to be Rs.74.80 crore.

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 August 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. Efforts to explore the possibility of converting the company into a joint venture have been initiated. Expressions of Interest (EOIs) has been invited by Advisers. Due diligence has been completed by interested parties. The turnover of the company in 2001-2003 is anticipated to be Rs. 38 crore.

Construction of Krishna Bridge 12x90 M at Vijayawada, Andhra Pradesh by BBJ

BHARAT YANTRA NIGAM LTD.

Bharat Yantra Nigam Ltd. (BYNL), was incorporated 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., Calcutta.
4. Richardson & Cruddas (1972) Ltd., Mumbai.
5. Tungabhadra Steel Products Ltd., Hospet, Karnataka.
6. Triveni Structurals Ltd., Naini, Allahabad.

The total production of all the subsidiary companies during 2002-2003 is anticipated to be Rs.830 crore.

BHARAT HEAVY PLATE AND VESSELS LTD.

Bharat Heavy Plate & 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. Government are exploring the possibility of Joint venture formation / divestment for the company. The production of the company for the year 2002-2003 is anticipated to be Rs.250 crore.

Reactor Regenerator for IOC, Haldia by BHPV

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 BIFR sanctioned revival plan is under implementation. As per the revival plan, Government have released Rs.15.75 cr. as fresh infusion of funds and carried out financial restructuring of Rs.81 crore. The BIFR Scheme has failed. At the direction of BIFR efforts have been initiated by OA for change of management. The company is likely to end the year 2002-2003 with a production of Rs.85 crore.

BRIDGE & ROOF COMPANY (INDIA) LTD.

Bridge & Roof Company (India) Ltd. (B&R) was initially a subsidiary of Balmer Lawrie & Co. Ltd. Subsequently, Government of India directly invested additional equity capital of Rs.1.74 crore in 1978 and thus B&R became a Government 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, chemical, steel, aluminium, etc. Government are pursuing Joint Venture formation/disinvestment of the company. The turnover of the company during

the year 2002-2003 is anticipated to be Rs.380 crore.

Paver Finisher with Electronic Sensor for road construction work undertaken by B & R

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 became sick and was referred to BIFR. As per the revival plan sanctioned by BIFR in 1995, Government has carried out financial restructuring of Rs.133 crore. Efforts to explore the possibility of converting the company into a joint venture have now been initiated. Advisers have been appointed for this purpose. Government are pursuing Joint Venture formation/disinvestment of the equity. The company's production during the year 2002-2003 is likely to be Rs.65 crore.

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 company became sick and was referred to BIFR. As per the revival plan sanctioned by BIFR, Government have released Rs.29.22 cr. as fresh infusion of funds and carried out financial restructuring of Rs.40.26 crore. BIFR had earlier issued a winding up notice of the company against which one party responded to takeover the management of the company. BIFR is awaiting a viable rehabilitation proposal. The production during the year 2002-2003 is anticipated to be Rs.30 crore.

India's highest 302 metre high TV Tower at Fazilka, Punjab by TSL

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 Government 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 Government are exploring the possibility of Joint Venture formation. Expression of Interests (EOIs) have been received from prospective bidders. The production of the company is anticipated to be Rs.20 crore during 2002-2003.

130T Rope Drum Hoist for export to Uganda by TSP

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 Roopnarainpur, 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.

A restructuring plan of the company was approved by the Government which included reservation of orders from Department of Telecommunication. Production of the company has since improved substantially with the production improving from Rs.217 crore in 1998-99 to Rs.579 crore in 2001-02. The production of the company during the year 2002-2003 is anticipated to be Rs.607 crore.

HEAVY ENGINEERING CORPORATION LTD.

Heavy Engineering Corporation Ltd. (HEC), Ranchi was incorporated on 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 equipment for steel plants, material handling equipment like wagon tipplers 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 became sick and was referred to BIFR. As per the revival plan sanctioned by the BIFR in 1996, Government released Rs.190 crore, and carried out a financial restructuring of Rs.371.51 crore. However, the company has not been able to achieve the targets as per the sanctioned plan. As directed by the BIFR, a consultant was appointed for carrying out a techno-economic viability study. The consultant's report is under examination. The company's production during the year 2002-2003 is anticipated to be Rs.230 crore.

HMT LTD. (HOLDING COMPANY WITH TRACTOR DIVISION)

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 separate Subsidiary Companies and disinvestment in these Subsidiaries. The Company has been restructured into HMT Limited, the Holding Company with

Tractor Business in its fold, and the other Business Groups have been spun off into subsidiaries viz., 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 process of Disinvestment/ Joint Venture has been initiated for HMT Machine Tools Limited, HMT Watches Limited, HMT Chinar Watches Limited & HMT Bearings Limited. Disinvestment/ JV formation shall be taken up in second phase for HMT (I) Ltd. and HMT (Holding Co.) after completion of disinvestment / JV process in subsidiary companies.

HMT's Tractor Division commenced its operations in 1971 in technical collaboration with M/s. MOTOKOV. Initially, HMT started the operation with the manufacture of 25 HP Tractor at the manufacturing plant established in Pinjore, Haryana. Over the years, it has developed Tractors ranging from 75 HP to 225 HP. The company achieved market leadership in tractors by enabling its range to cover most of the applications for the farming community.

Currently the company has three tractor manufacturing units in India located at Pinjore in Haryana, Mohali in Punjab and Hyderabad in Andhra Pradesh. It has a well equipped R&D Centre duly recognized by the Department of Scientific & Industrial Research, the Government of India.

The Tractor Business Group of HMT has been a recipient of a number of National Level-Productivity Awards. It has also been certified for ISO- 9001 by KEMA, Netherlands.

It has an in-house marketing organization comprising 17 Area Offices, 11 Stockyards and over 300 Dealers spread across the country. HMT Tractors Group is ably supported by over 40 Ancillary Units. HMT has produced and marketed over 3,60,000 Tractors since inception in India and abroad.

The production of HMT Holding Company including Tractors is anticipated to be Rs.263 crore during 2002-2003.

HMT 4922 Tractor developed by HMT

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.

HMT-MT Ltd. has its manufacturing units at five locations with each unit specialising 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 2002-2003 is anticipated to be Rs.250 crore.

HMT WATCHES LTD

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.

The product range of HMT Watches Ltd. caters to all segments of the market, from economy to premium and from the young to the old age group. 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.

Some of the Wrist Watch models introduced by HMT

HMT CHINAR WACTHES LTD.

HMT Limited, the first company to start watch manufacturing in India has 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 product range of HMT Chinar Watches Limited includes 13 models. The quality and reliabiliity 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, another wholly owned subsidiary of HMT Limited.

HMT Chinar Watches Ltd. has the manufacturing capacity of 5 lakh watches per annum. The projection of the company in 2002-2003 is anticipated to be Rs.3.70 crore.

PRAGA TOOLS LTD.

Praga Tools Ltd. (PTL), Secunderabad, originally incorporated as a Public Limited Company in 1943, became a Central Public Sector Enterprise 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 became sick and was referred to BIFR. The production during the year 2002-2003 is anticipated to be Rs.10 crore. Efforts to locate a joint venture partner for the company have not been successful.

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 enterprise as a subsidiary of HMT Ltd. The production of the company during the year 2002-2003 is anticipated to be Rs.35 crore.

HMT (INTERNATIONAL) LTD.

HMT (I) Ltd. was established in December, 1974 as a trading company for giving greater thrust to exports 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 2002-2003 is anticipated to be Rs.71 crore.

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. It 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 signalling systems, telecommunication equipment etc.

The company became sick and was referred to BIFR. A revival package sanctioned by BIFR in March, 1999 is under implementation. As per revival plan, Government have released Rs.66 crore as fresh infusion of funds and carried out financial restructuring of Rs.42.98 crore. As per the sanctioned revival plan, bids seeking expression of interest (EOI) for the three divisions of ILK, namely Control Valves at Palakkad, DDC at Kota, and Power Electronics (UPS) at Jaipur, were invited. Expression of interest has been received only in the case of Palakkad unit of the company and no EOI was received for DDC and Power Electronics division. Following a review of the progress of implementation of the revival plan of the company, Government has approved reservation of orders to the extent of 10% of the requirement of telephone exchanges by BSNL for a period of three years. Government is making efforts for disinvestment / JV formation in respect of ICVL. Share holders Agreement / Share Purchase Agreement is under finalisation. The production of ILK in the year 2002-2003 is anticipated to be Rs 152.50 crore.

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 scintilating performance, the PSE has gained the status of 'Miniratna'. The process of locating a joint venture partner for the company has been initiated as a part of restructuring effort. The production of the company during the year 2002-2003 is anticipated to be Rs.31.63 crore

A view of Solar Power Plant installed by REIL at village Kheri in Bhilwara district, Rajasthan

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 Opticals & 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. As per revival plan sanctioned by BIFR in November 1999, Government have released Rs.17.96 crore as fresh infusion of funds. However, the company's performance continues to be poor. Efforts to explore the possibility of joint venture formation for the company have been initiated. The production of the company during the year 2002-2003 is likely to be Rs. 6.35 crore.

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 during the past three years. With the improvement in the performance of the company, it has since come out of the purview of BIFR. The company is likely to achieve a production of Rs.127.61 crore in 2002-2003.

BHARAT OPHTHALMIC GLASS LTD.

Bharat Opthalmic Glass Ltd. (BOGL) was set up in 1972 and took over the Ophthalmic Glass Plant at Durgapur from the National Instruments and Ophtalmic Glass Ltd. The company is engaged in manufacture of 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. A draft rehabilitation scheme circulated by OA is under examination. In the meantime, an exercise to explore the possibility of joint venture formation has been initiated. The production of the company during the year 2002-2003 is anticipated to be Rs.2.65 crore

CEMENT CORPORATION OF INDIA LTD.

Cement Corporation of India Ltd. (CCI) was established in 1965. It has 10 operating units spread over 8 States/Union Territories, located in Mandhar, Akaltara in Chattisgarh and 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 infrastructural constraints particularly related to power shortage. 7 units out of 10 are non-operational due to various reasons. The company became sick and was referred to BIFR. 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 by May 2003.

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. These are :

Subsidiaries of HPC

1. Hindustan Newsprint Ltd. (HNL)
2. Nagaland Pulp & Paper Company Ltd. (NPPC).*

Units of HPC

(i) Nagaon Paper Mills (NPM)

(ii) Cachar Paper Mills (CPM)

The production of the company (NPM and CPM) during the year 2002-2003 is likely to be Rs.542.17 crore.

* BIFR has recommended for winding up of the company.

Cachar Paper Mill of HPC

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 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 since ordered for winding up of the company.

HINDUSTAN NEWSPRINT LTD.

Hindustan Newsprint Ltd. (HNL) was originally started as a unit of HPC. Subsequently, this unit was converted into a wholly owned subsidiary of HPC in August, 1983. This mill having annual capacity of 1 lakh MT is located in the State of Kerala and is engaged in the production of newsprint. The company has recently 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. Efforts to explore the possibility of a joint venture formation have been initiated. Necessary approval for SHA/SPA is being obtained before inviting financial bids from prospective bidders. The production during the year 2002-2003 is anticipated to be Rs.214.08 crore.

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 BIFR. The anticipated production of the company during the year 2002-2003 is Rs.30 crore.

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. Efforts to locate a joint venture partner for the company have been initiated by Ministry of Disinvestment. Its production during the year 2002-2003 is anticipated to be Rs.7.71 crore.

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. Efforts have been initiated for converting the company into a joint venture by Ministry of Disinvestment. The production of the company during the year 2002-2003 is likely to be Rs.7.38 crore.

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 Government 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. Recommendations of the Disinvestment Commission were considered and the Government has approved financial restructuring, VRS etc. apart from strategic sale of 51% to 100% of equity. Efforts have been initiated for undertaking Disinvestment/Joint Venture formation for the company.

The production of the company during the year 2002-2003 is anticipated to be Rs.72.41 crore.

TYRE CORPORATION OF INDIA LTD.

Tyre Corporation of India Ltd. was incorporated in 1984 in which the nationalised undertakings of two sick companies, namely, M/s Incheck Tyres Ltd. and M/s National Rubber Manufacturers Ltd. were vested. It has three operating units viz. (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. A Modernization-cum-expansion project at Kankinara was subsequently implemented for the manufacture of 6.31 lakh tyres and tubes per annum in technical collaboration with Techno Export of then undivided Czechoslovakia. The company became sick and was referred to BIFR. Tangra Unit of the company has since been closed after necessary permission from the appropriate authority. Efforts have also been initiated for converting the company into a joint venture. The production during the year 2002-2003 is likely to be Rs.105.60 crore.

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. Efforts to locate a joint venture partner for the company have not been successful. In the meantime, all the employees of the company have availed the benefits of VRS with financial assistance from Government. All operations of the Company have been discontinued and closure/winding up of the company is being contemplated.

ENGINEERING PROJECTS (INDIA) LTD.

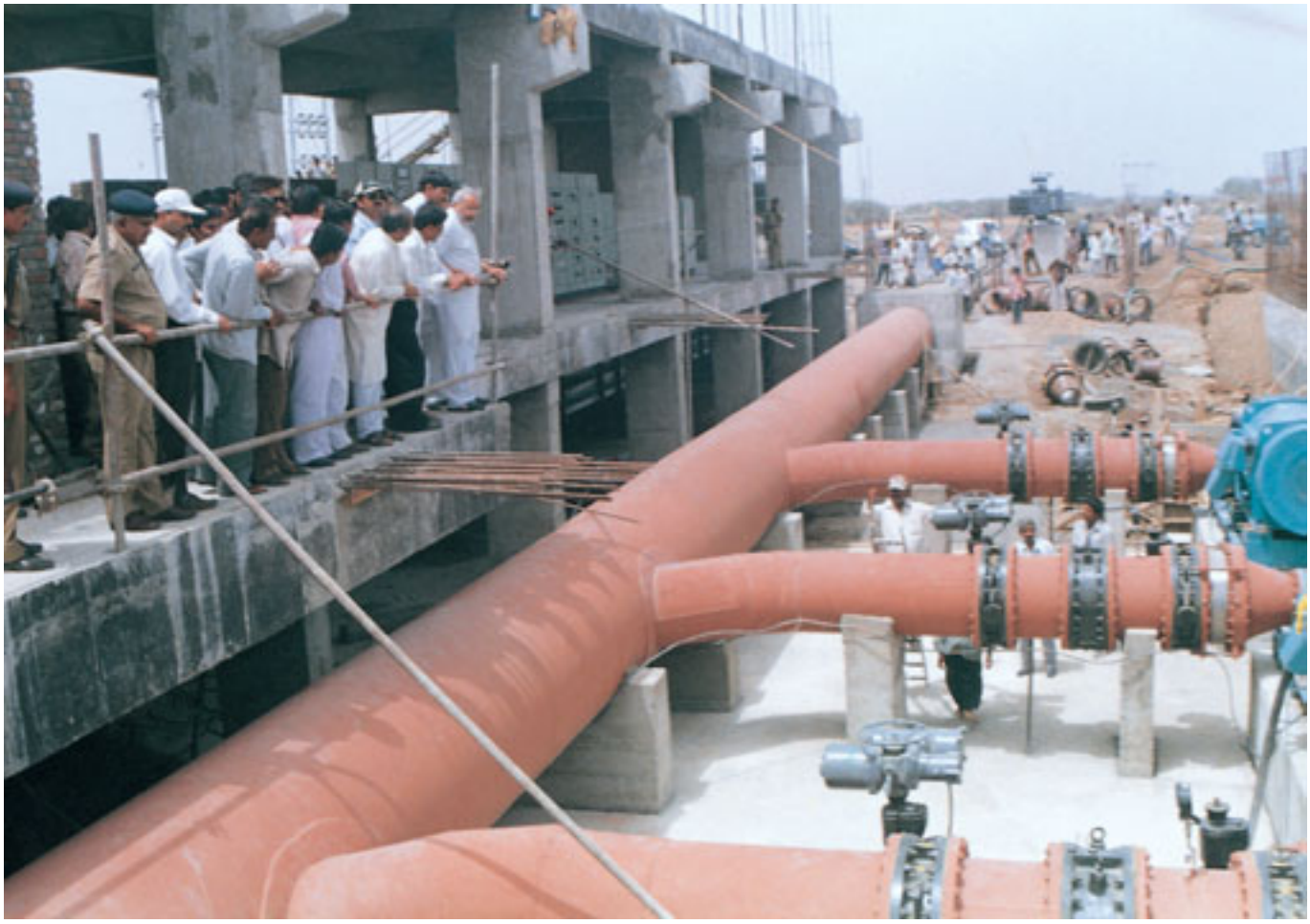
Engineering Projects (India) Ltd. (EPI) is a premier turnkey contracting company incorporated in the year 1970. The company's field of operation is extensive and includes projects relating to civil and structural engineering, material handling, metallurgical, petrochemical, environment and pollution control etc. After the financial restructuring of the company in 2001, the company has turned around and has posted profits. Efforts to convert the company into a joint venture company have been initiated. Expression

of Interests (EOIs) have been received and SPA/ SHA are under finalisation.

The turnover of the company during the year 2002-2003 is expected to be Rs.417.84 crore.

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. As it is not a manufacturing company, it is not referable to BIFR. Efforts to convert the company into a joint venture formation have not been successful.All employees of the company have opted for VRS/VSS. Winding up process has been initiated in Delhi High Court.



Sardar Sarovar Canal-based drinking water supply project in Gujarat, undertaken by EPI

Heavy Electrical Industry and other Industrial Machinery Sectors

HEAVY ELECTRICAL INDUSTRY

Heavy Electrical Industry covers Units manufacturing large plant and machinery required for power generation, transmission, distribution and utilisation. These include turbo-generators, boilers, various types of turbines, transformers, motors switchgears and other such items.

Majority of products manufactured by Heavy Electrical Industry in the country which include items like power generating units electric motors, transformers, switchgears etc. are used by all sectors of the Indian Economy. Some major areas where these are used are the large 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. As a result, today India is among a handful of nations to have a strong base and undertake complex projects on turnkey basis for export markets also. The Industry is free to take up manufacture of any item.

The existing installed capacity in the industry is of the order of 4500 MW of thermal, 1345 MW of Hydro and about 250 MW of gas based power generation equipment per annum and the capacity is being augmented by manufacturing units depending upon the needs and their capacity. The industry has also established a strong manufacturing base to cater to the requirement of equipment for nuclear power plants in the country. The share of domestic equipment is about 66% in the country's generation capacity.

The Heavy Electrical Industry is capable of manufacturing transmission and distribution equipment upto 400 KV AC and high voltage DC. The Indian industry has taken up the work for upgradation of transmission to next higher voltage system of 765 KV class transformers, reactors, CTs, CVTs, bushing and insulators etc. Large electrical motor used in Steel Plants, Petrochemical complexes and other such heavy industries are also being manufactured in the country.

The domestic Heavy Electrical equipment manufacturers are making use of the developments in the global market with respect to product designs and upgrading of manufacturing & testing facilities. The industry has taken up work for development of Flexible AC Transmission (FACTs) and other Power Electronics Projects. BHEL has already introduced FACTS and Controlled Shunt Reactor (CSR).

A status report covered under Heavy Electrical Industry is given below :

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 in the country. Apart from BHEL, the public sector unit which has the largest installed capacity of 6000 MW p.a. there are units in the private sector also manufacturing steam & hydro turbines for power generation and industrial use. The manufacturing range of BHEL includes steam turbines upto 500 MW unit rating which they are planning to enhance upto 660 MW. They have capability to manufacture Gas Turbines upto 255 MW (ISO) rating.

AC Generators manufactured in India are at par with international AC Generators and consistently deliver high quality power with performance.

123 MW Gas Turbine (Frame 9E) exported to China, by BHEL

Domestic manufacturers are capable of manufacturing AC Generator right from 0.5 KVA to 25,000 KVA and above with specified voltage rating.

BOILERS

BHEL is the largest manufacturer of boilers in the country and has the capacity to manufacture boilers from 30 to 500 MW capacity using Coal, lignite, oil, natural gas or a combination of these fuels and capacity to manufacture boilers with super critical parameters up to 1000 MW unit size. BHEL presently accounts for around 60% of total production of boilers. The domestic industry has the capacity to meet the requirement/demand for boilers indigenously.

TRANSFORMERS

The domestic transformers industry is well established with ability to provide state-of-the-art equipments. The industry has the capacity to manufacture whole range of power and distribution transformers including the REC ratings of 25,53,100 KVA and also the extra High voltage range of 400 kV, 600 MVA. Special types of transformers required for earthing; furnaces, rectifiers; electrostatic precipitators; freight loco etc. and series and shunt reactors as well as HVDC transmission upto 500 kV are also being manufactured in the country. The industry is well equipped to cope with the requirements of the country's power sector development programme.

The export opportunities have also improved for Indian industry. Many of the transformer manufacturers have now started exporting their products, even to western countries and to the USA.

SWITCHGEAR AND CONTROL GEAR

In India, the entire range of circuit breakers from bulk oil, minimum oil, air blast, vacuum to Sulfur Hexaflouride (SF6) are manufactured to standard specifications for the benefit of customers. The range of products produced cover the entire voltage range for 240V to 800V. Switchgear and controlgear, Miniature Circuit Breakers (MCBs), air circuit breakers, switches, rewireable fuses and High Rupture Capacity (HRC) fuses with their respective fuse bases, holders and starters are being produced to customers' specifications as well as to standard specifications. Motor control centres, distribution panels and elaborate control systems based on microprocessor and computer control are also available for power stations, load despatch centres, major receiving centres and industrial complexes.

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

ELECTRICAL FURNACE

There are two types of Electrical furnaces, i.e. (i) Induction furnaces, heating equipment and (ii) Arc Furnaces. 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.

SHUNTING LOCOMOTIVES

Shunting locomotives for localised/internal transport facilities are used in Railways, Steel Plants, Thermal power plants etc.. The installed

capacity is adequate to meet the domestic demand. BHEL among others is manufacturing such locomotives.

TEXTILE MACHINERY INDUSTRY

Indian Textile Machinery Manufacturers are manufacturing textile machinery required for sorting, cording, processing of yarns/fabrics and weaving along-with the components, spares and accessories. There are over 600 units engaging in the manufacture of machinery and spares out of which about 100 units are manufacturing complete machinery.

Ring Frame LR6 AX, with Auto Doffer 1200 Spindles, being manufactured by Lakshmi Machine Works

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 during the last 3 years are as under:

(Rs. crore)

Year	Production	Exports
1999-2000	1111	447
2000-2001	1308	427
2001-2002(E)	1073	427

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 organised 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. The production for 2000-2001 and 2001-2002 was Rs. 395.45 crore and Rs. 274.57 crore respectively. Imports and exports during 2001-2002 were around Rs.0.42 crore and Rs.4.38 crore respectively. The industry is facing paucity of demand and hence their capacity is under utilised.

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 (Tonnes 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 production for 2000-2001 and 2001-2002 was Rs. 208.46 crore Rs. 170.63 crore respectively.

The manufacturers can design and manufacture from concept to commissioning entire plant of latest design. The industry is facing problems of diminishing demand.

The Imports & Exports during 2001-02 were Rs.3 lakhs & Rs.253 lakhs respectively.

RUBBER MACHINERY INDUSTRY

There are at present 19 units in the organised sector for the manufacture of rubber machinery mainly required for tyre/tube industry. The range of equipments manufactured in the country includes inter-mixer, tyre-curing presses, tube splicers,bladder curing presses, tyre moulds, tyre building machines, turnet servicer, bias cutters, rubber injection moulding machine, bead wire etc. There is gap in technology for the manufacture of

high speed calendering 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. The import and exports during 2001-02 were Rs.11.35 crore and Rs.11.04 crore respectively.

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 tipplers, feeders etc. catering to the growing and rapidly changing needs of the core industries such as Coal, Steel, Cement, Power, Ports, Mining & Fertilizers plants.

There are 50 units in the organised sector, for the manufacture of material handling equipment. The production for 2000-2001 and 2001-2002 was Rs. 428.53 crore and Rs. 174.87 crore respectively. Besides units in the organised sector, there are number of units operating in the small scale sector manufacturing material handling equipments and its components. Imports and exports during 2001-2002 were around Rs.124.10 crore and Rs. 22.09 crore respectively. This industry is more or less self sufficient in meeting domestic demand and are capable of meeting global competition.

PULP AND PAPER MACHINERY

There are 78 units in the organised sector manufacturing pulp & paper machinery. The estimated value of installed capacity is around Rs. 200 crores per annum. The production for 2000-2001 & 2001-2002 was Rs. 70.84 crore and Rs. 60.62 crore respectively

The indigenous industry has been well established and are able to produce plants ranging from 10 TPD to 300 TPD capacity which includes equipments for pulping facilities, stock preparation, finishing etc. The indigenous industry is also in a position to execute orders on turnkey basis. Imports and Exports during 2001-02 were Rs.95.15 crore and Rs18.69 crore respectively.

A view of Paper Machine installed at Hindustan Paper Corporation

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. Ltd.

PRINTING MACHINERY

The printing Machinery can be broadly classified into three groups of pre-printing, printing and post-printing equipment. The result of R&D efforts by leading manufacturers in the world has transformed printing from a craft oriented activity to large scale mechanised, automatic and streamlined operation involving technology inputs at each stage. The present trend is towards the

use of computer based systems particularly in the pre-printing equipment and the controls of printing machines.At present, there are 70 printing and allied equipment manufacturers in the country out of which 21 units are in the organised sector. The production for 2000-2001 & 2001-2002 was Rs. 145.09 crore and Rs. 229.35 crore respectively. The present range of manufacture includes single and multicolour Sheetfed and Webfed offset printing machines of medium speeds and simple controls, rotogravure/flexogravure, rotary printing machines and simple/semiautomatic plate making, binding, stitching and finishing equipment. The country is totally dependent on imports for most of the pre-printing equipment and automatic binding equipment. Efforts are made to induct technology for digital offset printing. The estimated exports and imports for printing and allied equipment during 2001–2002 were Rs.322.59 crores and Rs.110.58 crores respectively.

METALLURGICAL MACHINERY

Metallurgical machinery includes equipment for mineral benefication, ore dressing, size reduction, steel plant equipment, foundry equipment and furnaces.At present, there are 39 units in the organised sector engaged in the manufacture of various types of metallurgical machinery. The production for 2000-2001 & 2001-2002 was Rs. 290.89 crore and Rs. 200.08 crore respectively. 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. The imports and exports of Metallurgical Machinery items during 2001-2002 were Rs.191.80 crore and Rs.126.60 crores respectively.

MINING MACHINERY

The major mining equipments are Longwall Mining Equipment, Road Header, Side Discharge Loader (SDL), Haulage Winder, Ventilation Fan, Load Hauldumper (LHD), Coal Cutter, Conveyors, Battery Loco, Pumps, Friction Prop, etc.At present, there are 32 manufacturers in the organised 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 production for 2000-2001 & 2001-2002 was Rs. 149.52 crore and Rs. 238.86 crore respectively. 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. The imports and exports of mining machinery during 2001-2002 were Rs.28.93 crore and Rs.11 lakhs respectively.

DAIRY MACHINERY INDUSTRY

The range of equipments presently manufactured by the indigenous manufacturers include stainless steel dairy equipments, evaporators, milk refrigerators and storage tanks, milk and cream deodorisers, centrifuges, clarifiers, agitators, homogenisers, spray dryers and heat exchangers(tubular and plate type) etc. At present there are 16 units manufacturing dairy machinery and equipments in the organised sector, both in private and public sector. In the recent years many dairy plants have been commissioned by M/s. N.D.D.B. and the majority of equipments have been supplied by indigenous manufacturers. The

spray dryers, plate type heat exchanger and other core equipments for their milk powder plant call for high degree of polish requirement on the equipments because the presence of any microcrevices resulting from inadequate polish tends to be the incubation and breeding ground for the bacteria. The production for 2000-2001 & 2001-2002 was Rs. 14.8 crore and Rs. 14.53 crore respectively. Small Scale Sector is also contributing to indigenous production for fabricated equipments for dairy industry. The technology gap exists for handling equipments such as self-cleaning cream, separator, asceptic processing system etc. The processing technology for manufacture of yoghurt and traditional Indian sweets plant equipment is also deficient. The estimated export and import of Dairy and Mixing equipment in 2001-02 has been Rs. 535 lakh and Rs.278 lakhs respectively.

MACHINE TOOL INDUSTRY

Machine Tool Industry is the backbone of the industrial engineering sector. 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 organised sector as also around 300 units in the small ancillary sector.

Indian machine tools are manufactured to the international standards of quality/precision and reliability. Most of the major manufacturers have already developed Computerised Numerically Controlled (CNC) Machine Tools. A number of collaborations have also been approved for bringing in the latest technology in the 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, the Central Manufacturing Technology Institute, Bangalore has been doing research for more appropriately designed machine tools. The sector is delicenced and import is also permitted. There is a gap in technology for Special Purpose Machines and even in some categories of CNC Machine Tool. Import of technology is encouraged to bridge the gap.

The production, import and export data furnished by the Machine Tools Manufacturing Association for 2000-2001 and 2001-2002 are as under:-

(Rs. in crore)

	2000-01	2001-02
Production	585.00	516.00
Import	341.00	311.00
Export	30.00	48.00

Automotive Industry

AUTOMOBILE INDUSTRY

Overview

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. Automotive industry has universally emerged as an important driver in the economy. 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 dominated 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, 18 new ventures have come up of which 17 are for manufacture of cars.

The automotive industry comprising of the automobile and the auto component sectors has made great advances since delicensing and opening up of the sector to FDI in 1993. The investment in the industry is Rs. 50,000 crores up to 31.3.2000. The turnover of the automobile industry exceeded Rs. 63,025 crore in 2000-2001. Including turnover of the auto-component sector, the automotive industry's turnover exceeded Rs. 81,600 crore approximately. 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 4.0% in 1998-99.

Installed Capacity

There has been substantial addition to capacity creation since 1993-1994. The installed capacity of the Automobile sector during the year 2001-2002 was as under.

S.No.	Segment	Installed capacity (in nos.)
1.	Four wheelers	1,500,000
2.	Two & Three Wheelers	6,400,000
	Total	**7,900,000**

Performance of the Automobile Industry during 2001-2002

Overall automobile sector registered a growth of 13.19% in 2001-2002. During the current year i.e. 2002-2003 upto April-November the Industry has registered a growth of 22.14% as compared to the corresponding period of the last year i.e. 2001-2002 (April-November)

The detials of actual production during 2001-2002 and for 2002-2003 (April-November) with the corresponding figures of last year are given below:

(In numbers)

S. N.	Name of the Industry	2001-2002 (Whole Year)		2002-2003 (Apr-Nov.)	
		No. of units	Prod	No. of units	Prod
1	2	3	4	5	6
1.	Commercial Vehicles	9	146197	9	124758
2.	Cars	12	564126	12	350152
3.	Multi-Utility Vehicles	5	123748	5	100064
4.	2-wheelers	12	4323644	12	3443331
5.	3-wheelers	4	212753	4	176646
	TOTAL	**42**	**5370468**	**42**	**4194951**

The automobile industry is also contributing to export effort of the country. The details of export during 2001-2002 and for 2002-2003 (upto November) are given below:-

(Quantity in Nos.)

S.No.	Type of Vehicles	2001-2002	2001-2002 (Apr-Nov)	2002-2003 (Apr-Nov)
1.	Medium & Heavy Commercial vehicle	4656	2438	2885
2.	Light Commercial vehicle	6770	4282	3643
3.	Cars	50108	29969	42876
4.	Jeeps	3548	2307	1079
5.	2-wheelers	103381	64590	111330
6.	3-wheelers	13425	8388	28178
	TOTAL	**184188**	**111974**	**189991**

Government initiated pollution and safety checks by notifying emission and safety standards from the year 1992 which were further tightened in April 1996 under the Motor Vehicle Act.

Euro I emission norms have already been made applicable throughout the country and India is poised to induct Euro II norms across the country by April 2005.

From that date 7 metropolitan cities are envisaged to switch over 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 require 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 have initiated several steps for upgrading the existing testing facilities and setting up of new testing infrastructure in the country.

AUTOMOBILE COMPONENTS INDUSTRY

Overview

Auto Component Industry, with a turnover of Rs 20,000 crore sector manufacturing all the key components required for vehicle manufacturing, is an important sector of the Automotive Industry.

The planned growth process followed during the 1980s has given a major fillip to the development of the Indian auto component sector. 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 automovite 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 411 key players who contribute more than 85% of the

output of this sector. The vital statistics of the auto component sector is as follows:

		2001-2002
Investment	:	Rs. 10,700 crore
Output	:	Rs. 20,000 crore
Exports	:	Rs. 2,775 crore
Employment	:	2,50,000 persons

Performance of the Auto Components Industry during 2001-2002

In the last year the Indian auto component industry has displayed remarkable resilience regardless of the recession in the economy. While the economy was down and the GDP grew by a mere 4%, growth in production of auto components has been a round 16% in 2001-02. The production during the year 2001-02 was of the order of Rs. 20,000 crore as compared to Rs. 17,246 crore during the year 2000-01.

On export front, auto component industry has registered a growth of only 2.5% during the year 2001-02 over the previous year. During the year 2001-02, total export was of the order of Rs. 2775 crore as compared to Rs. 2706 crore during the previous year.

AGRICULTURAL MACHINERY

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

AGRICULTURAL TRACTORS

At present, there are as on date 14 units in the organised sector manufacturing agricultural tractors covering a wide range from lower Horse Power in the range of 16-20 HP to higher Horse Power of 50 and above.

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 2,34,575 in 2000-2001. Production figures of tractors during the last few years are given below:-

Year	Numbers
1998-1999	2,53,850
1999-2000	2,66,385
2000-2001	2,34,575

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.

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. 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 and Gujarat States are growing at a faster pace.

EARTH MOVING AND CONSTRUCTION MACHINERY

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.

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. 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 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.

The number of Earth-Moving and Construction equipment manufactured during last 3 years along with their exports are given below:

Year	Production (in Nos.)	Exports (in Rs. Million)
1999-2000	6717	120
2000-2001	7605	40
2001-2002	6853	210

Technology Upgradation and R&D

A constant, conscious and concerted thrust on R&D efforts is a sine-qua-non 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 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 has to brace up itself and take the bull by the horn. While the Government appreciating the importance of promoting thrust on R&D have contemplated certain catalytic action points, 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 -

1. A Knowledge Management Group on R&D was set up in July, 2002 to track globally emerging technologies and their relevance to the Indian Industry. The terms of reference of this Committee include review and progress of R&D in PSEs under Department of Heavy Industry, recommend R&D programmes to be taken up, identify and strengthen areas where country has advantage and require funding of R&D programmes.

2. It has been recognised that in the liberalised regime, the country will have to become a leader in some technology areas where India has comparative advantage and also to ensure establishment of essential facilities to exalt some industrial sectors earmarked for promotion. Some of the efforts being made in this direction are indicated.

(i) 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 and its efficiency integration with a suitably designed gas turbine is of paramount importance in achieving higher overall efficiency of IGCC plant. There are three basic generic type of coal gasification processes viz.

(a) moving bed
(b) entrained bed and
(c) fluidised bed

BHEL has already made some headway in developing a technology suitable for local coal which has higher ash content. As such, a project is proposed to be taken up with the active participation of the various agencies in the power sector viz. Deptt. of Power, CEA, NTPC, BHEL , Deptt. of Heavy Industry etc. for the development of a prototype of 100 MW capacity to establish the feasibility of commercial application of clean coal technology. The project will result in better utilisation of 'high ash' Indian Coal besides improving the efficiency of power generation and reducing pollution.

(ii) Testing facility for Auto 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. A large number of automobile majors

of the world have set up production facilities in India taking the installed capacity to 7.9 million vehicles per annum involving an investment of about Rs.50,000 cr. 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 facilities 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.

3. R&D IN 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 :

Bharat Heavy Electrical Ltd. (BHEL)

During the last financial year 2001-2002, a turnover of Rs.613.13 crore was achieved by commercializing products and systems through in-house R&D/technology developments. An amount of Rs.87.14 crore (1.2% of turnover) was spent on R&D programmes, focusing on new product/ system development, product improvements in terms of reliability/quality/cost and import substitution. While the effort may appear modest when compared with that of the competitors, the results have been highly encouraging.Some of the achievements made and programmes undertaken for R&D and technology upgradation are as under-

- India's largest capacity Atmospheric Fluidized Bed Combustion (AFBC) boilers (2x165 tonnes/hour), indigenously developed by BHEL, have been successfully commissioned at Jindal Steel & Power Ltd., Raigarh. The development of these boilers, capable of firing various fuels like coal, washery rejects and char, will enable BHEL to supply large capacity AFBC boilers with multiple fuel options.
- For the first time in the country, BHEL has developed a 420 kV gas insulated bus duct for transmission of bulk power in places where installation of overhead lines is uneconomical or impractical. The main application of these bus ducts is for transmitting power from underground hydro power stations to substations located at ground level.
- An improved design of the Automated Storage Retrieval System (ASRS) by eliminating the control and power cables has been developed. The control signals between the stacker crane and the control cubicle are now exchanged through Radio Frequency (RF) signals.

First Space-grade solar panel assembled at BHEL, Bangalore for satellite application for ISRO

Major R&D / Technology projects likely to be completed by year ending 2002-2003 include :

- Development and field trials of 2000 Nm3/ hr blowers for CFBC boilers.
- Development of 5 MVA superconducting generator
- Experimental performance evaluation of a typical 3-D impeller.

- Design, development and testing of main starting resistors for WCAM3 AC/DC locomotives.
- Development of phase shifting transformer with static tap changer.
- Commencement of power mode field trials of 145 kV GIS.
- Development of Francis hydro turbine model suitable for 500 metre head.
- Development of four jet Pelton turbine model for Kuttiyadi Hydro Power Plant.
- Establishment of manufacturing of Fr.9E gas turbine shroud segments of improved design.
- Design development of 60 Hz generator for Frame 6 gas turbine with improved ventilation system.
- Development of new modified shaft seal for silt prone Salal Hydro Power Station.
- Establishment of Blast Furnace Gas firing in a package type boiler.
- Development of aerofoil bladed fan for hot primary air application in boilers.

400 KV, 50 MVAR Controlled Shunt Reactor at Itarsi Switching Station, supplied by BHEL

Burn Standard Co. Ltd. (BSCL)

R&D activities undertaken during the current year 2002-2003 in the company are as under :

(i) In Salem Works of the company, a project for manufacture of Mag. Alumina & Mag Chrome Spinel in collaboration with MECON is under progress. On completion, Salem Works will become capable of manufacturing high performance Bricks which will be used for Cement/Glass Industry etc.

(ii) Burnpur Works of BSCL has acquired the technique of in-built Air Fludising system in special purpose wagons (BTAP) and obtained the patent right for electro-pneumatically operated DOM for Bottom Discharged Wagons. This development has resulted in cost reduction and import substitution.

(iii) Electrical Power Generation and Bio-Gas/Bio-Fertilizer from Municipal & Organic Solid Waste.

(iv) High Power Magnets for separation of Silica from Magnesite.

(v) Microwave induced biomethanation from Jute waste and MSW composite.

(vi) Non-conventional energy generation from Jute Mills and Jute Colony Waste using genetically mutated micro-organism.

(vii) Developed technology for conversion of Bi-degradable Municipal Solid Wastes into Bio-Energy (Electricity, Bio-gas and NPK organic manure as a by-product). 2 Nos. Captive Plants are running successfully.

(viii) Magnesite beneficiation (removal of Silica as impurity) through Open Dump Leaching using aerobic fungi growth mechanism techniques in Biotechnology. Experimental trial runs have already been started at Salem Works.

Instrumentation Ltd., Kota (ILK)

The process of technology upgradation particularly for DDC range, Control Valve range, UPS range and other products is being followed up vigorously. In Telecom field C-DOT technology has been fully absorbed to manufacture most

advanced Large Size Electronic Switches. The company has taken actions further for acquiring advanced technologies for ISDN feature and Remote Line Concentrator (RLC). Action have also been taken to acquire WLL technology. For other major product ranges of Distributed Digital Control Systems, the company is exploring tie-ups with renowned major players in the field. Likewise, for UPS range the company is pursuing leading manufacturers for introduction of IGBT technology for bigger size Constant Voltage Frequency (CVCF) UPS as well as Mini-UPS including fractional KVA rating and Switch Mode Power Supplies (SMPS) for Telecom applications.

HMT Ltd. (Holding Company & Subsidiaries)

The company has established its own R & D facilities for different products to meet its needs. The focus of R&D is to progressively achieve self-reliance in product technology and retain the competitive edge in respect of features, aesthetics and price.

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 optimisation and improvement in aesthetics are the major thrust areas. This approach has resulted in many new products and also upgradation of existing products, including tractors.

The Machine Tool Subsidiary has designed and manufactured a high technology five axis gantry power mill for Vikram Sarabhai Space Centre (VSSC), Trivandrum. On development of this machine HMT was conferred a National Award by Department of Scientific and Industrial Research (DSIR) for its R&D efforts.

The Machine Tool subsidiary has also designed and manufactured a high power 16 Axis CNC Machine for axle machining along with fully automated loading / unloading system for Wheels and Axles Plant (WAP).

High technology Five Axis Gantry Power Mill, designed and manufactured by HMT

Andrew Yule & Co. Ltd. (AYCL)

The main focus of in-house R&D facilities in the Company has been to provide continuous upgradation of existing products to match the domestic market as well as to grab the opportunity in export market. The 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 commercialisation. The Company's R&D set up has been recognised by the Department of Scientific & Industrial Research. Some of the R&D activities carried by the company's different Units have been 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 markets.

(b) Brentford Unit of the company has developed Dry Type 315 KVA 6KV and 11KV/33KV Dry Type Transformer.

(c) Togami Unit of AYCL has following developments to its credit :

(i) 12KV Latch Type Sectionalizer Switch with B21 VI.

(ii) 12 KV 400A 20KA Vacuum Cap Switch with CGL VI as well as 100A and 150A

Single Pole DC Moulded Case Circuit Breakers.

In addition, 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 12KV 630 A, 25KA, 95KV Vacuum Circuit Breakers.

Scooters India Ltd. (SIL)

Technology upgradation and R&D programmes undertaken by the company during the year 2002-2003 are as under –

(a) Vikram 750D with water cooled engine upgraded for provision of alternator and starter motor in place of dynastarter and introduced in the market.

(b) CNG operated Vikram 410G self start version developed.

(c) LPG operated Vikram 600G is under development trial.

(d) 3-Seater Auto Rickshaw version of electric three wheeler vehicle is under development.

(e) Chassis modified for Vikram 450D for improving its life.

Heavy Engineering Corporation (HEC)

Some of major R & D and technology upgradation programmes taken up by the company relate to the development of the Cyclotron magnet, ramming gun for the Bhilai Steel Plant, an 8 ton girth gear, bulb bar for ship building, among others.

Hindustan Cables Ltd. (HCL)

The R&D Centre of the company has continued its efforts on standardisation of new and cheaper basic raw materials for Jelly Filled Cables and Optical Fibre Cables. It has developed a higher dia Optical Preform by using Over Cladding Technolgy.

Hindustan Paper Corporation (HPC)

Specific areas in which R&D carried out by the company are ;

(i) Improvement in pulping and bleaching process by adopting eco-friendly technology.

(ii) Reduction in Energy consumption.

(iii) Reduction of pollution load and treatment of affluent.

Efforts made towards technology absorption, adaptation & Innovation include ;

– Installation of Dynamic Chlorine Mixer at Pulp Mill of NPM & CPM.

– Installation of Disc Filter Saveall for Jessop & Utmal Machine at NPM.

– Installation of Falling Film Finisher at NPM.

– Installation of Duoflo for Utmal Machine at NPM.

– Conversion of pneumatic to electronic instruments phasewise.

– Installation of Laboratory Equipment at NPM & CPM.

Benefits derived as a result of the above efforts are ;

– Reduction of chlorine consumption.

– Reduction in fresh water consumption and conversation of fibres & fillers.

– Improvement of steam economy and higher solids concentration.

4. NATIONAL LEVEL INSTITUTES FOR R&D IN NEW TECHNOLOGIES

In the past, five national level institutes have been set up with UNIDO/UNDP assistance for research in newer 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).

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 20 bar HP air flow calibration and testing facility to enable the petroleum companies to have the tests carried out in India.

20 Bar Close Loop Air Test facility, being inspected by experts from Netherlands, at FCRI

Pollution Control Research Institute, Hardwar

Pollution Control Research Institute (PCRI) has been set up by Department of Heavy Industry with Bharat Heavy Electricals Ltd. (BHEL) as the lead agency under United Nations Development Programme (UNDP). The development objective of PCRI project is to evolve 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.

Centre for Electric Transportation, Bhopal

The Project for development of Electric Transporation Technology was approved by the Government 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 foreseable operating conditions.

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 have been offered to more than 50 organisations.

Welding Research Institute (WRI), Tiruchirapalli

Welding Research Institute (WRI), the only one of its kind in the country, was set up at Tiruchy under the aegies of BHEL with funding and technical assistance from UNDP/UNIDO and Government of India. WRI 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. WRI has entered into an agreement with GTZ Germany for undertaking cooperative research projects in welding, in the IInd phase of the Project.

Welfare of Minorities

Public Sector Enterprises under this Department are highly conscious of their obligations to promote the welfare of minorities in the light of Government's directives on this 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 the Department. 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.

Every year Quami Ekta/Sadbhavna Diwas is organised where people from all sections of the society including women and children participate to stimulate the spirit of oneness, national integration and harmony.

Vigilance

1. Vigilance Organisation in the Department is under the charge of a Joint Secretary who functions as the Chief Vigilance Officer (CVO) on the advice of Central Vigilance Commission. The CVO is assisted by Deputy Secretary, one Under Secretary and supporting staff.

2. The Vigilance Section under the supervision of the CVC takes care of the vigilance matters. The main areas of work of Vigilance Section are :

   – Dealing with complaints against Board level appointees as well as below Board level officers;

   – Issue of vigilance clearance in respect of both Board level appointees and below Board level appointees in PSEs and all other appointments based on PESB recommendation requiring ACC approval.

   – Liaisoning with CVC, CBI and CVOs of PSEs under Department of Heavy Industry 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;

3. The vigilance Organization also lays emphasis to preventive vigilance and punitive measures are taken in appropriate cases and followed up wherever required. As a result the pendency has been drastically reduced.

4. Vigilance Section is also responsible for maintaining Annual Confidential Reports of officers and staff of the Department and also of the Board level appointees of 49 PSEs under the administrative control of this Department. Vigilance Section is also monitoring Annual Property Returns of officers of Department of Heavy Industry and Chief Executives of PSEs under Department of Heavy Industry. It also maintains the ACRs of CVOs of PSEs.

Progressive Use of Hindi

1. Efforts of the Department to promote the use of Hindi in the official work of the Department, efforts continued with full vigour.

2. During the period under review, the Parliamentary Committee on Official Language inspected the Bharat Heavy Electrical Ltd., Hardwar and Delhi and has expressed satisfaction in progress of Hindi. The officers of the Department carried out inspections of some enterprises during the year to monitor progress made in use of Hindi and their officers were apprised of the Official Language Policy of the Government.

3. All the Notifications, Resolutions, Notes and Circulars, Parliament Questions, Annual Reports, General Orders and Papers laid on the Tables of both Houses of Parliament were issued in Hindi and English. All the letters received in Hindi were responded to in Hindi. In order to promote the use of Hindi and to increase Hindi correspondence, a special "Hindi Pakhwara" was organised from 20.5.2002 to 31.5.2002. "Hindi Divas" was organized for a month in the month of September – October, 2002 during which several competitions including Hindi Noting/ drafting, Eassay writing and Paragraph writing were conducted. The employees of the Department participated in these activities with keen interest. Cash awards were given to winning candidates. Workshop was also organized for officers/employees of the Department to impart training in noting/ drafting in Hindi.

4. Following important steps were taken to promote progressive use of Hindi in official works during the year :-

   (i) Under rule 8(4) of the Official Language (Use for Official Purposes of the Union) Rule 1976, the Central Government is required to specify by order the offices where Hindi alone can be used for Noting, drafting etc. Accordingly on 20.2.2002, the Deptt. has notified Budget and Accounts Section, Finance-III and Co-ordination Section for the purpose of rule 8(4). This is in addition to six sections of the Deptt. already notified for discharging all their function in Hindi.

   (ii) Under rule 10(4) of the official language (Use for Official Purposes of the Union) Rule 1976, the Central Government is required to notify the offices where more than 80% staff have acquired working knowledge of Hindi. The Deptt. has accordingly notified HMT Bangalore and Hindustan cables Ltd. Kolkata as more than 80% staff have acquired the working knowledge of Hindi in those offices.

   (iii) The programme of learning Hindi through AAJ KA SHABDA' is being implemented.

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 the use of Hindi. "Hindi Pakhwara" / "Hindi Diwas" were celebrated in these PSEs with great zeal. The publication brought out by the PSEs also contain sizeable number of articles written in Hindi.

Empowerment / Welfare of Women

1. The Industry Sector is conscious of the principles of gender equality as enshrined in the Indian Constitution in its Preamble, Fundamental Rights, Fundamental Duties and Directive Principles.

2. The women movement and a wide spread network of non-Government Organizations which have strong grass root presence and deep insight into women's concerns have contributed in inspiring initiatives for the empowerment of women. The Hon'ble Supreme Court has also laid down guidelines and norms to be observed to prevent sexual harassment of working women.

3. In order to create adequate awareness regarding human rights especially of female employees, Department of Heavy Industry, in accordance with the directions issued by the Government for the preservation and enforcement of rights to gender equality and justice to working women employees, has constituted a Complaint Committee in this Department for redressal of complaints related to sexual harassement of women. The guidelines laid down by Supreme Court relating to sexual harassment have been brought to the notice of all those working in this Department. Moreover, the Department of Public Enterprises vide their OM dated 29th May, 1998, has issued detailed guidelines and norms to Chief Executives of PSEs for observance and prevention of sexual harassment of working women.

4. The Department actively encourages women employees to freely participate in all activities like meetings, seminars, competitions & training etc. This helps in ensuring their integration into the mainstream work force.

ANNEXURE - I

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 31.3.2002
1	Andrew Yule & Co.Ltd. (AY&CO) Kolkata	1979	189.06
2	Hoogly Printing Kolkata	1979	1.66
3	Bharat Heavy Electricals Ltd. (BHEL), New Delhi	1956	3239.00
4	Burn Standard Co. Ltd. (BSCL) Kolkata	1976	130.18
5	Jessop & Co. Ltd Kolkata	1973	59.62
6	Braithwaite & Co. Ltd. Kolkata	1976	40.50
7	Bharat Wagon Engineering Company Ltd. (BWEL) Patna	1978	16.65
8	BBJ Construction Co. Ltd. Kolkata	1987	7.08
9	Bharat Heavy Plate & Vessels Ltd. (BHPV) Vishakhapatnam	1966	77.32
10	Bharat Pumps & Compressors Ltd. (BPCL) Allahabad	1970	37.60
11	Richardson & Cruddas (R&C) Mumbai	1972	34.22
12	Triveni Structurals Ltd. (TSL) Allahabad	1965	20.12
13	Tunghabhadra Steel Products Hospet, Karnataka	1967	22.34
14	Bridge and Roof Co. (India) Ltd. Kolkata	1972	86.44
15	Hindustan Cables Ltd. (HCL) Kolkata	1952	529.22
16	Heavy Engineering Corpn. Ltd. (HEC) Ranchi	1958	305.41
17	HMT Ltd. (HMT) Bangalore	1953	116.05

(Rs. in crore)

Sl.No.	Name of PSE and location of Registered Office	Year of setting up of PSE	Gross Block as on 31.3.2002
18	HMT Machine Tools Ltd. Bangalore	1999	211.95
19	HMT Watches Ltd. Bangalore	1999	189.30
20	HMT Chinar Watches Ltd. Bangalore	2000	10.37
21	Praga Tools Ltd. (PTL) Secundrabad	1959	37.40
22	HMT (Bearing) Bangalore	1981	28.33
23	HMT (International) Bangalore	1974	15.37
24	Instrumentation Ltd, (IL) Kota	1964	62.23
25	REIL Jaipur	1981	6.41
26	National Instruments Ltd. (NIL) Kolkata	1957	8.79
27	Scooters India Ltd. (SIL) Lucknow	1972	39.40
28	Bharat Opthalmic Glass Ltd. (BOGL) Durgapur	1972	5.91
29	Cement Corpn.of India Limited (CCI), New Delhi	1965	625.16
30	Hindustan Paper Corporation Limited (HPC) Kolkata	1970	744.24
31	Nagaland Pulp and Paper Co. Ltd. (NPPC) Tuli, Nagaland	1971	74.36
32	Hindustan Newsprint Ltd (HNL) Vellore,Kottayyam	1983	274.29
33	Hindustan Photo Films Mfg. Co. Ltd. (HPF) Ooty	1960	715.05
34	Hindustan Salts Limited (HSL) Jaipur	1959	4.04
35	Sambhar Salts Limited (SSL) Jaipur	1964	6.31

(Rs. in crore)

Sl.No.	Name of PSE and location of Registered Office	Year of setting up of PSE	Gross Block as on 31.3.2002
36	Nepa Ltd. (NEPA) Nepanagar	1949	114.37
37	Tyre Corpn. of India Ltd. (TCIL) Kolkata	1984	127.62
38	Bharat Leather Corpn Ltd. (BLC) Agra	1976	2.04
39	Engineering Projects (India) Ltd. (EPI) New Delhi	1970	16.34
40	National Industrial Development Corporation Ltd. (NIDC) New Delhi	1954	2.40
	Total		**8234.15**

Note: (i) 9 PSEs namely, BPME,WIL, BBVL, RBL, TAFCO, CCIL, NBCIL, RIC & MAMC have been closed.

(ii) Apart from above 40 Operating PSEs, there are two non-manufacturing holding companies (BBUNL & BYNL).

ANNEXURE - II

Employment Position, including SC/ST, as on 31.3.2002 in Public Sector Enterprises under the Department of Heavy Industry.

S.No.	Name of PSE	TOTAL NO. OF EMPLOYEES				No. of SC Employees	No. of ST Employees
		Executives	Supervisors	Workmen/ Others	Total		
1	2	3	4	5	6	7	8
1	Andrew Yule	309	141	15814	16264	1976	4198
2	Hoogly Printing	10	8	56	74	1	–
3	BHEL	10117	7471	29928	47516	8577	1774
4	BSCL	190	326	1960	2476	–	–
5	JESSOP	194	80	1221	1495	70	9
6	BRAITHWAITE	127	65	988	1180	130	–
7	BWEL	78	100	1426	1604	123	3
8	BBJ	42	0	73	115	12	1
9	BHPV	532	745	1145	2422	409	133
10	BPCL	292	103	1127	1522	256	4
11	R&C	98	–	390	488	139	30
12	TSL	123	137	514	774	75	1
13	TSP	68	36	413	517	158	21
14	B&R	769	307	484	1560	212	3
15	HCL	420	409	2528	3357	893	246
16	HEC	1038	743	3456	5237	372	1091
17	HMT	434	103	2272	2809	636	114
18	HMT (MT)	1411	229	3414	5054	860	215
19	HMT (Watches)	586	170	2682	3438	595	165
20	HMT (Chinar Watches)	38	92	632	762	54	4
21	PTL	122	9	614	745	133	13
22	HMT(Bearing)	118	41	505	664	70	1

S.No.	Name of PSE	TOTAL NO. OF EMPLOYEES				No. of SC Employees	No. of ST Employees
		Executives	Supervisors	Workmen/ Others	Total		
1	2	3	4	5	6	7	8
23	HMT(I)	60	4	15	79	11	2
24	IL	289	860	1019	2168	334	93
25	REIL	43	33	99	175	37	3
26	NIL	15	109	341	465	91	15
27	SIL	242	97	1563	1902	311	2
28	BOGL	13	2	185	200	21	4
29	CCI	303	336	2374	3013	493	227
30	HPC	645	240	2262	3147	313	246
31	NPPC	13	7	332	352	5	186
32	HNL	230	81	942	1253	86	4
33	HPF	121	69	1298	1488	244	64
34	HSL	15	39	101	155	22	7
35	SSL	7	35	155	197	63	10
36	NEPA	190	0	1708	1898	153	33
37	TCIL	67	49	566	682	24	5
38	BLC	–	–	–	–	–	–
39	EPIL	463	53	101	617	101	15
40	NIDC	92	7	22	121	17	5
	TOTAL	**19924**	**13336**	**84725**	**117985**	**18077**	**8947**

Note: (i) 9 PSEs namely, BPME,WIL, BBVL, RBL, TAFCO, CCIL, NBCIL, RIC & MAMC have been closed.

(ii) Apart from above 40 Operating PSEs, there are two non-manufacturing holding companies (BBUNL & BYNL).

ANNEXURE - III

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

(Rs. in crore)

Sl. No.	Name of PSE	1999-2000 (Actual)	2000-2001 (Actual)	2001-2002 (Actual)	2002-2003 (Anticipated)	2003-2004 (Target)
1	2	3	4	5	6	7
1	AY&CO	196.57	167.02	112.45	139.36	190.52
2	Hooghly Printing	3.14	3.32	7.11	7.50	7.75
3	BHEL	6634.00	6348.00	7287.00	7600.00	8200.00
4	BSCL	217.71	235.02	118.79	204.82	226.69
5	JESSOP	48.26	53.48	58.75	64.22	61.48
6	BRAITHWAITE	118.59	147.11	75.20	99.88	109.62
7	BWEL	57.41	113.10	74.54	74.80	116.44
8	BBJ	24.18	37.51	36.47	38.00	40.00
9	BHPV	140.01	264.27	223.17	250.00	270.00
10	BPCL	42.53	59.51	66.42	85.00	90.00
11	R&C	73.51	74.90	67.11	65.00	75.00
12	TSL	16.57	13.70	21.60	30.00	35.00
13	TSP	40.93	37.42	15.03	20.00	30.00
14	B&R	324.45	334.49	347.06	380.00	410.00
15	HCL	803.51	875.08	579.08	607.50	773.52
16	HEC	273.42	147.19	162.10	230.52	252.08
17	HMT	718.18	296.57	217.68	263.50	320.10
18	HMT(MT)	–	200.95	227.76	250.00	300.00
19	HMT(Watches)	–	144.08	79.05	120.00	200.00
20	HMT(Chinar Watches)	–	1.78	2.11	3.73	9.00
21	PTL	14.06	6.42	3.98	10.03	16.51

(Rs. in crore)

Sl. No.	Name of PSE	1999-2000 (Actual)	2000-2001 (Actual)	2001-2002 (Actual)	2002-2003 (Anticipated)	2003-2004 (Target)
1	2	3	4	5	6	7
22	HMT(B)	47.35	45.00	41.68	35.62	54.00
23	HMT(I)	42.47	46.81	58.69	71.03	91.39
24	IL	124.48	106.74	107.85	152.50	185.00
25	REIL	20.33	27.45	30.78	31.63	36.05
26	NIL	3.01	5.63	5.48	6.35	7.10
27	SIL	132.05	116.79	129.66	127.61	145.91
28	BOGL	3.07	3.71	3.09	2.65	2.92
29	CCI	134.88	71.99	137.02	166.77	293.48
30	HPC	393.54	468.83	521.73	542.17	561.20
31	NPPC*	–	–	–	–	–
32	HNL	195.77	254.02	242.24	214.08	241.50
33	HPF	47.99	31.97	42.40	30.00	37.75
34	HSL	3.82	5.10	5.52	7.71	9.94
35	SSL	5.17	3.83	6.09	7.38	9.10
36	NEPA	97.97	131.75	99.97	72.41	113.75
37	TCIL	126.91	93.57	64.98	105.60	149.92
38	BLC	1.74	2.09	–	–	–
39	EPI	171.05	260.97	390.53	417.84	512.63
40	NIDC	6.85	4.28	0.07	0.00	0.00
	Total	**11305.48**	**11241.45**	**11670.24**	**12535.21**	**14185.35**

Note: (i) 9 PSEs namely, BPME,WIL, BBVL, RBL, TAFCO, CCIL, NBCIL, RIC & MAMC have been closed.

(ii) Apart from above 40 Operating PSEs, there are two non-manufacturing holding companies (BBUNL & BYNL).

* No Production.

ANNEXURE - IV

Statement showing Profit(+)/Loss (-) (Before Tax) of Public Sector Enterprises under the Department of Heavy Industry

(Rs. in crore)

Sl. No.	Name of PSE	1999-2000 (Actual)	2000-2001 (Actual)	2001-2002 (Actual)	2002-2003 (Anticipated)	2003-2004 (Target)
1	2	3	4	5	6	7
(A) PROFIT MAKING PSEs						
1	Hoogly Ptg	0.07	0.05	0.41	0.78	0.82
2	BHEL	865.00	294.00	663.00	778.00	894.00
3	BBJ	10.00	0.60	0.57	-0.18	-1.39
4	BHPV	-20.36	0.94	1.71	1.30	2.20
5	HPC	10.60	32.80	63.75	36.81	48.10
6	B&R	6.58	3.39	3.60	4.00	5.00
7	EPI	-48.14	17.76	9.44	3.00	9.00
8	HMT	-296.91	24.41	10.24	14.70	4.24
9	HMT(B)	3.50	2.16	0.94	-2.15	2.60
10	HMT(I)	0.39	0.38	0.54	0.77	1.37
11	REIL	0.67	0.43	0.60	0.70	1.05
12	SIL	6.78	5.10	2.26	1.10	1.98
13	HNL	7.21	30.35	6.45	-13.29	-0.19
	Sub-total for (A) Profit making Cos.	**545.39**	**412.37**	**763.51**	**825.54**	**968.78**
(B) LOSS MAKING PSEs						
14	AY&CO	1.56	-26.78	-39.45	-12.52	1.48
15	BRAITHWATE	-14.13	1.74	-33.55	-19.21	-15.37
16	TSP	0.11	0.07	-20.03	-6.00	-3.50
17	BPCL	-19.30	-5.59	-12.46	0.10	1.40
18	BSCL	-35.41	-45.22	-78.35	-55.37	-51.63
19	JESSOP	-43.93	-48.77	-47.60	-54.68	-57.52
20	BWEL	-10.78	-4.69	-26.87	-18.81	-11.51
21	R&C	-1.66	-8.15	-19.21	-9.00	-6.00
22	TSL	-26.77	-45.92	-12.23	-8.10	-5.00

(Rs. in crore)

Sl. No.	Name of PSE	1999-2000 (Actual)	2000-2001 (Actual)	2001-2002 (Actual)	2002-2003 (Anticipated)	2003-2004 (Target)
1	2	3	4	5	6	7
23	HCL	-39.32	-71.41	-236.08	-244.49	-236.31
24	HEC	-57.06	-189.26	-139.40	-60.15	-37.83
25	HMT(MT)	0.00	-96.17	-70.65	-62.65	-38.61
26	HMT(Watch))	0.00	-59.18	-108.29	-59.15	2.18
27	HMT(Chinar)	0.00	-7.95	-10.16	-10.91	-21.39
28	PTL	-29.11	-34.42	-35.06	-15.78	-8.20
29	ILK	-28.35	-34.52	-30.49	-25.88	-10.05
30	NIL	-6.57	-4.48	-5.90	-4.02	-4.15
31	BOGL	-37.69	-24.88	-31.87	-35.39	-39.74
32	CCI	-216.91	-230.76	-215.33	-240.89	-240.63
33	NPPC	-15.00	-15.26	-26.43	-13.36	-16.56
34	HPF	-278.45	-328.16	-353.72	-376.89	-414.17
35	HSL	-2.91	-2.19	-1.91	-0.88	-0.90
36	SSL	-2.03	-3.27	-3.02	-1.69	-1.75
37	NEPA	9.52	4.86	-35.16	-43.39	-31.39
38	TCIL	-60.62	-66.43	-67.41	-58.75	-55.18
39	BLC	-3.03	-2.42	*	*	*
40	NIDC	-5.02	-6.83	-10.87	*	*
Sub-total (B) Loss making Cos.		**-922.86**	**-1356.04**	**-1671.50**	**-1437.86**	**-1302.33**
GRAND TOTAL(A&B)		**-377.47**	**-943.67**	**-907.99**	**-612.32**	**-333.55**

Note: (i) 9 PSEs namely, BPME,WIL, BBVL, RBL, TAFCO, CCIL, NBCIL, RIC & MAMC have been closed.

(ii) Apart from above 40 Operating PSEs, there are two non-manufacturing holding companies (BBUNL & BYNL).

* Operation discontinued

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				
		1999-2000 (Actual)	2000-01 (Actual)	2001-02 (Actual)	2002-03 (Anticipated)	2003-04 (Target)	1999-2000 (Actual)	2000-01 (Actual)	2001-02 (Actual)	2002-03 (Anticipated)	2003-04 (Target)
1	2	3	4	5	6	7	8	9	10	11	12
1	AY&CO	21.63	34.13	47.58	37.08	26.08	3.97	4.92	6.60	5.16	3.70
2	Hoogly Ptg.	31.52	30.87	21.78	15.43	16.55	2.74	2.74	1.31	1.37	1.39
3	BHEL	19.76	26.09	19.83	19.70	19.27	3.44	3.28	3.14	3.13	2.99
4	BSCL	40.57	39.94	42.77	17.70	13.85	3.17	2.89	4.68	1.88	1.37
5	JESSOP	87.50	64.80	40.58	42.26	37.53	4.00	3.10	2.44	2.54	2.26
6	BRAITHWAITE	37.84	23.97	52.64	26.17	17.67	2.20	1.30	2.78	2.85	1.82
7	BWEL	58.30	37.90	57.20	41.70	100.00	1.60	0.90	0.80	0.90	0.30
8	BBJ	20.20	14.40	12.31	14.82	16.00	1.13	0.91	0.90	1.02	1.00
9	BHPV	39.44	20.25	21.16	15.72	12.37	4.10	2.54	2.79	2.20	2.15
10	BPCL	52.02	49.44	32.66	25.49	20.80	5.56	5.38	3.79	2.86	2.53
11	R&C	17.88	8.31	10.96	8.60	6.79	1.30	1.07	0.92	0.63	0.55
12	TSL	114.81	97.73	41.06	27.83	22.17	13.52	18.25	6.81	2.17	1.82
13	TSP	30.61	25.35	57.41	30.65	19.13	2.06	1.40	3.38	2.35	1.20
14	B&R	11.32	10.61	10.64	10.16	9.74	0.68	0.84	0.78	0.59	0.49
15	HCL	6.08	5.96	10.33	10.04	7.73	1.15	1.11	1.18	1.11	0.87
16	HEC	37.03	67.44	46.21	20.12	15.27	5.65	13.13	7.06	2.87	0.00
17	HMT	44.22	23.04	21.13	17.47	15.63	5.17	2.56	2.58	2.27	2.07
18	HMT(MT)	—	59.00	39.00	31.00	28.00	—	8.00	4.00	3.00	3.00
19	HMT(Watches)	—	58.73	67.74	47.50	28.50	—	14.08	20.45	11.69	7.19
20	HMT(Chinar)	—	499.00	511.00	325.00	146.00	—	47.00	69.00	46.00	19.00
21	PTL	40.00	52.00	43.00	40.00	31.00	13.00	15.00	12.00	11.00	9.00
22	HMT(B)	25.00	27.00	30.00	32.00	24.00	3.00	4.00	4.00	4.00	3.00
23	HMT(I)	4.84	5.15	3.23	3.06	3.26	1.03	1.07	0.07	0.44	0.02
24	IL	36.26	39.38	36.87	24.82	19.19	2.29	2.20	2.05	1.38	1.14
25	REIL	11.80	13.40	11.23	11.00	10.44	2.93	2.62	2.54	1.75	1.65
26	NIL	128.00	62.00	64.00	43.00	29.00	0.34	0.18	0.16	0.15	0.13
27	SIL	17.72	18.87	18.65	18.99	17.78	4.55	4.44	4.63	4.66	4.13
28	BOGL	137.50	107.39	83.82	76.22	69.18	55.00	31.03	23.24	16.23	14.73
29	CCI	37.03	74.20	32.65	22.08	10.88	2.30	4.86	2.00	1.42	0.89
30	HPC	9.73	9.71	8.56	8.24	8.28	5.01	5.30	6.57	6.13	5.70
31	NPPC	—	—	—	—	—	—	—	—	—	—
32	HNL	9.28	8.51	9.74	8.13	7.83	4.77	5.17	5.47	4.85	4.51
33	HPF	87.59	91.15	70.74	66.92	54.60	2.66	3.77	2.38	1.67	1.27
34	HSL	82.61	69.08	64.67	45.48	36.72	6.00	6.11	4.89	3.53	3.02
35	SSL	73.74	90.43	43.06	34.74	32.34	5.67	7.05	3.65	2.47	2.32
36	NEPA	16.00	12.00	20.00	18.00	11.00	3.00	2.00	3.00	1.00	0.01
37	TCIL	23.41	34.28	31.70	18.20	8.47	4.53	5.65	4.26	4.54	2.99
38	BLC	37.00	33.00	14.00	—	—	1.22	1.02	0.37	—	—
39	EPIL	10.93	6.85	4.41	4.46	3.35	1.23	1.01	0.91	1.34	0.78
40	NIDC	55.57	77.56	68.07	121.16	—	10.14	16.22	1.99	0.70	—

Note: (i) 9 PSEs namely, BPME,WIL, BBVL, RBL, TAFCO, CCIL, NBCIL, RIC & MAMC have been closed.

(ii) Apart from above 40 Operating PSEs, there are two non-manufacturing holding companies (BBUNL & BYNL).

ANNEXURE - VI

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

(Rs. in crore)

Sl. No.	PSU	As on 1.10.1998	As on 1.10.1999	As on 1.10.2000	As on 1.10.2001	As on 1.10.2002
1	2	3	4	5	6	7
1	AY&CO	123.34	117.35	130.78	140.05	131.66
2	Hoogly Ptg	0.20	0.30	0.20	2.60	2.50
3	BHEL	10086.00	10082.00	10526.00	10029.00	12573.00
4	BSCL	181.62	112.50	123.20	0.87	1.11
5	JESSOP	87.52	32.89	68.47	63.95	58.67
6	Braithwaite	101.64	155.23	156.20	19.98	106.85
7	BWEL	43.93	77.79	108.56	33.24	32.68
8	BBJ	20.55	30.19	57.79	40.09	51.99
9	BHPV	175.50	158.52	309.20	183.05	130.41
10	BPCL	20.20	26.24	66.10	73.91	38.83
11	R&C	105.40	83.21	96.80	79.71	158.15
12	TSL	65.20	50.85	46.70	38.58	37.72
13	TSP	27.20	26.43	55.00	25.95	32.65
14	B&R	297.60	239.73	325.40	375.77	385.16
15	HCL	4.00	72.16	185.49	243.49	351.63
16	HEC	234.80	169.03	150.93	150.32	99.63
17	HMT	—	—	—	—	NA
18	HMT(MT)	141.98	140.57	133.00	145.08	99.19
19	HMT(Watches)	—	—	—	—	NA
20	HMT(Chinar)	—	—	—	—	NA
21	PTL	21.53	12.34	12.74	8.12	5.30
22	HMT(B)	14.76	18.02	2.25	2.28	4.37
23	HMT(I)	33.61	28.19	38.30	42.53	53.15
24	IL	55.00	64.00	36.03	34.85	53.82
25	REIL	3.55	4.91	6.04	19.43	16.94
26	NIL	3.38	4.14	2.16	2.51	2.13
27	SIL	—	—	—	—	—
28	BOGL	0.58	0.41	0.44	0.52	0.53
29	CCI	20.00	22.30	12.29	110.41	4.17
30	HPC	4.17	9.37	24.89	24.10	4.15
31	NPPC	—	—	—	—	—
32	HNL	—	—	—	—	—
33	HPF	—	—	—	1.36	4.00
34	HSL	2.04	1.00	2.21	0.39	3.22
35	SSL	2.93	2.05	1.20	2.10	1.03
36	NEPA	8.12	16.25	27.80	6.59	5.94
37	TCIL	13.14	15.84	9.00	5.00	4.72
38	BLC	0.72	1.17	1.80	—	—
39	EPIL	158.68	261.00	430.00	626.45	595.78
40	NIDC	0.15	4.85	13.06	0.39	—
	TOTAL	**12059.05**	**12040.83**	**13160.03**	**12532.67**	**15051.08**

Note: (i) 9 PSEs namely, BPME,WIL, BBVL, RBL, TAFCO, CCIL, NBCIL, RIC & MAMC have been closed.
(ii) Apart from above 40 Operating PSEs, there are two non-manufacturing holding companies (BBUNL & BYNL).

ANNEXURE - VII

Export Performance of Public Sector Enterprises under the Department of Heavy Industry

(Rs. in crores)

Sl. No.	PSEs	1998-99			1999-2000			2000-2001			2001-2002			2002-2003 (Anticipated)		
		Physical	Deemed	Total	Physical	Deemed	Total	Physical	Deemed	Total	Physical	Deemed	Total	Physical	Deemed	Total
1	AY&CO	16.89	17.31	**34.20**	10.49	17.79	**28.28**	8.86	12.00	**20.86**	8.09	0.00	**8.09**	10.50	5.60	**16.10**
2	BHEL	69.00	1902.00	**1971.00**	355.00	1395.00	**1750.00**	247.00	1426.00	**1673.00**	987.00	1524.00	**2511.00**	889.00	1171.00	**2060.00**
3	BSCL	1.81	12.95	**14.76**	2.69	0.17	**2.86**	2.80	0.00	**2.80**	4.89	0.00	**4.89**	3.36	19.09	**22.45**
4	JESSOP	1.26	0.00	**1.26**	0.24	0.00	**0.24**	0.12	0.00	**0.12**	0.12	0.00	**0.12**	0.24	0.00	**0.24**
5	BWT	0.00	0.00	**0.00**	0.00	0.00	**0.00**	7.84	0.00	**7.84**	0.00	0.00	**0.00**	0.00	0.00	**0.00**
6	BWEL	0.00	0.20	**0.20**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**
7	BHPV	0.00	19.99	**19.99**	12.78	5.19	**17.97**	2.00	2.92	**4.92**	0.00	6.37	**6.37**	0	2.32	**2.32**
8	BPCL	0.00	0.02	**0.02**	0.00	0.14	**0.14**	0.00	0.01	**0.01**	0.00	0.00	**0.00**	0.00	0.00	**0.00**
9	R&C	1.44	0.00	**1.44**	0.41	3.06	**3.47**	0.34	0.99	**1.33**	0.24	0.30	**0.54**	0.25	0.50	**0.75**
10	TSL	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**
11	TSPL	2.05	2.35	**4.40**	2.58	7.03	**9.61**	2.58	7.03	**9.61**	1.69	1.86	**3.55**	0.00	1.50	**1.50**
12	B&R	1.09	0.00	**1.09**	0.00	0.00	**0.00**	0.88	0.00	**0.88**	8.47	0.00	**8.47**	12.00	0.00	**12.00**
13	HCL	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**
14	HEC	0.00	6.17	**6.17**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**
15	HMT(MT)	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**
16	HMT(Watches)	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**
17	PTL	0.66	0.00	**0.66**	0.16	0.00	**0.16**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**
18	HMT(B)	0.20	0.00	**0.20**	0.05	0.00	**0.05**	0.11	0.00	**0.11**	0.15	0.00	**0.15**	0.10	0.00	**0.10**
19	HMT(I)	32.74	0.00	**32.74**	34.37	0.00	**34.37**	39.18	0.00	**39.18**	49.68	0.00	**49.68**	63.50	0.00	**63.50**
20	IL	0.13	0.45	**0.58**	0.10	1.40	**1.50**	0.80	0.00	**0.80**	0.25	1.34	**1.59**	1.00	1.50	**2.50**
21	REIL	0.42	0.00	**0.42**	0.42	0.00	**0.42**	0.25	0.00	**0.25**	0.08	0.00	**0.08**	0.20	0.00	**0.20**
22	NIL	0.01	0.00	**0.01**	0.01	0.00	**0.01**	0.09	0.00	**0.09**	0.02	0.00	**0.02**	0.10	0.00	**0.10**
23	SIL	3.21	0.00	**3.21**	6.26	0.00	**6.26**	1.29	0.00	**1.29**	0.28	0.06	**0.34**	1.00	0.50	**1.50**
24	HPC	3.21	0.21	**3.42**	26.90	3.21	**30.11**	3.39	14.58	**17.97**	0.00	25.17	**25.17**	0.00	9.55	**9.55**
25	HPF	0.04	0.00	**0.04**	0.01	0.00	**0.01**	0.36	0.00	**0.36**	0.40	0.00	**0.40**	1.00	0.00	**1.00**
26	HSL	1.08	0.00	**1.08**	0.73	0.00	**0.73**	0.81	0.00	**0.81**	0.92	0.00	**0.92**	1.10	0.00	**1.10**
27	SSL	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.10	0.00	**0.10**	0.00	0.00	**0.00**
28	EPIL	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	4.14	**4.14**	0.00	0.00	**0.00**	0.00	0.00	**0.00**
	Total	**135.24**	**1961.65**	**2096.89**	**453.20**	**1432.99**	**1886.19**	**318.70**	**1467.67**	**1786.37**	**1062.38**	**1559.10**	**2621.48**	**983.35**	**1211.56**	**2194.91**

ANNEXURE - VIII

Paid up Capital, Networth and Accumulated Profit(+)/Loss(-) as on 31.3.2002 of the PSEs under 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	50.03	3.93	-28.13	-76.35
2	HOOGLY PTG	1.03	—	1.17	0.14
3	BHEL	191.00	54.00	4221.00	4225.00
4	BSCL	127.51	—	-401.78	-420.78
5	JESSOP	93.76	1.32	-311.52	-398.78
6	BRAITHWAITE	105.65	—	-51.90	-150.79
7	BWEL	9.99	—	-31.18	-41.17
8	BBJ	2.14	—	0.10	-2.04
9	BHPV	73.57	—	49.07	-4.01
10	BPCL	53.53	—	-67.59	-120.26
11	R&C	54.84	—	-45.65	-77.77
12	TSL	21.02	—	-159.01	-178.77
13	TSP	6.69	1.75	-14.04	-22.07
14	B&R	13.98	—	40.99	27.01
15	HCL	415.19	1.67	-393.63	-810.49
16	HEC	448.12	—	-1067.33	-1494.01
17	HMT	459.67	8.50	55.50	-368.92
18	HMT(MT)	10.70	—	-354.32	-166.82
19	HMT(Watch)	5.49	—	-242.92	-165.47
20	HMT(Chinar)	1.41	—	-51.85	-50.63
21	PTL	17.06	19.11	-218.36	-254.53
22	HMT(B)	8.49	0.24	13.39	3.35
23	HMT(I)	0.48	—	20.94	20.58
24	IL	75.75	—	-89.54	-166.31
25	REIL	0.64	0.61	4.77	3.52
26	NIL	8.31	—	-220.02	-228.31
27	SIL	41.00	1.99	50.34	7.36
28	BOGL	7.14	—	-287.48	-294.24
29	CCI	428.28	—	-1240.97	-1637.61
30	HPC	700.38	—	574.18	-126.20
31	NPPC	113.92	6.28	-77.18	-197.39
32	HNL	82.54	—	189.20	111.54
33	HPF	179.93	19.19	-1610.88	-1828.63
34	HSL	8.36	—	-4.91	-14.10
35	SSL	0.60	0.40	-7.13	-9.40
36	NEPA	103.00	2.40	-55.47	-154.60
37	TCIL	93.10	—	-499.61	-592.20
38	BLC	5.72	—	-24.95	-30.67
39	EPIL	7.82	0.18	116.51	-846.80
40	NIDC	1.87	—	-32.36	-34.32
	TOTAL	**4029.71**	**121.57**	**-2252.55**	**-6565.94**

Note: (i) 9 PSEs namely, BPME,WIL, BBVL, RBL, TAFCO, CCIL, NBCIL, RIC & MAMC have been closed.
(ii) Apart from above 40 Operating PSEs, there are two non-manufacturing holding companies (BBUNL & BYNL).

ABBREVIATIONS

AAIFR	Appellate Authority of Industrial & Financial Reconstruction
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 Opthalmic 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.
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.
NIDC	National Industrial Development Corporation Ltd.
PSE	Public Sector Enterprises
PTL	Praga Tools Ltd.
R&C	Richardson & Cruddas (1972) Ltd.
RDSO	Research Design & Standard Organisation
RIC	Rehabilitation Industries Corporation Ltd.
RSW	Radiation Shielding Window
SHA	Shareholders Agreement
SIL	Scooters India Ltd.
SPA	Share Purchase Agreement
SSL	Sambhar Salts Ltd.
TAFCO	Tannery & Footwear Corporation of India Ltd.
TCIL	Tyre Corporation of India Ltd.
TSL	Triveni Structurals 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.