Annual Report 2008-09

Ministry of Heavy Industries and Public Enterprises
Government of India
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Ministry of Heavy Industries and Public Enterprises

Chapter 1

Introduction

The Ministry

1.1 The Ministry, comprising the Department of Heavy Industry and the Department of Public Enterprises, functions under the charge of Cabinet Minister (Heavy Industries and Public Enterprises) who is supported by the Minister of State. The Ministry focuses on promoting the development and growth of capital goods, auto, power equipment manufacturing and engineering industry in the country, framing of policy guidelines for Central Public Sector Enterprises (CPSEs) and administration of CPSEs.

Department of Heavy Industry

1.2 The Department of Heavy Industry is concerned with the development of the engineering industry viz. machine tools, heavy electrical, industrial machinery and auto industry and administers 32 operating CPSEs. The CPSEs under the Department are engaged in manufacture of engineering/capital goods, consultancy and contracting services. The enterprises under the Department produce a wide range of products ranging from machine tools, industrial machinery, boilers, gas/steam/hydro turbines, turbo generators, electrical equipment, and railway traction equipment, pressure vessels, AC locomotives, prime movers, agricultural tractors and consumer products such as watches, paper, tyres and salt. The industries provide goods and services for almost all sectors of the economy, including power, rail and road transport. The Ministry also looks after the Machine Building Industry and caters to the requirements of equipment for basic industries such as steel, non-ferrous metals, fertilizers, refineries, petrochemicals, shipping, paper, cement, sugar, etc. The Department supports the development of a wide range of intermediate engineering products like castings, forgings, diesel engines, industrial gears and gear boxes. The Department also administers:

i. NATRiP Implementation Society (NATIS) set up in July 2005 for guiding the implementation of the National Automotive Testing and R & D Infrastructure Project (NATRiP),

ii. Fluid Control Research Institute (FCRI), Palakkad, Kerala which caters to the needs of the flow industry for calibration,

iii. Automotive Research Association of India (ARAI), and

iv. Forging Industry Research Institute of India (FIRI), Pune, Maharashtra.

Allocation of Business for the Department of Heavy Industry is given at **Annexure-I.**

1.3 The Department maintains a constant dialogue with various Industry Associations and encourages initiatives for the growth of industry. The Department also assists the industry in achievement of their growth plans through policy initiatives, suitable interventions for restructuring of tariffs and trade, promotion of technological collaboration and up-gradation, and research & development activities etc.

1.4 The Department of Heavy Industry is headed by a Secretary to the Government of India who is supported by an Additional Secretary, two Joint Secretaries, Directors/ Deputy Secretaries, an Economic Adviser, a Technical Wing and an Integrated Finance Wing. A Joint Secretary and a Director, respectively, in this Department are functioning as Joint Secretary (Public Grievances) and Director (Staff Grievances) in order to ensure that the grievances are redressed in time; a Nodal officer of the rank of Director has been designated in the Department for the redressal of grievances of Pensioners; a Nodal officer of the rank of Director has been designated in the Department in respect of officers/staff members working in the Department for settlement of disputes in Lok Adalat. An officer of the rank of Deputy Secretary has been designated as CPIO to provide information under the RTI Act. A Complaints Committee has been constituted in this Department for redressal of complaints related to sexual harassment of women for the preservation and enforcement of rights to gender equality and justice to working women employees. The organizational chart of the Department is given at **Annexure–II.**

Department of Public Enterprises (DPE)

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

1.6 The Department of Public Enterprises is the nodal department for all Central Public Sector Enterprises (CPSEs) and formulates policy pertaining to the role of CPSEs in the economy and also lays down policy guidelines on performance improvement and evaluation, autonomy and financial delegation, personnel management and related areas for the CPSEs. It also collects, evaluates and maintains information on several areas in respect of CPSEs. The DPE is also the interface between the administrative Ministries and the CPSEs.

1.7 The National Common Minimum Programme (NCMP) envisages a strong and effective public sector. It has laid great emphasis on turning around of sick and loss making CPSEs. Accordingly, a Board for Reconstruction of Public Sector Enterprises (BRPSE) has been set up (December, 2004), under the administrative charge of the Department of Public Enterprises, to consider inter-alia, revival/restructuring proposals of sick/loss making CPSEs and make suitable recommendations related thereto.

1.8 As per Allocation of Business Rules of the Government, the following subjects have been allocated to the Department of Public Enterprises:-

- Coordination of matters of general policy of non-financial nature affecting all public sector industrial and commercial undertakings.
- Matters relating to Memorandum of Understanding and mechanism for improving the performance of public sector undertakings.
- Matters relating to Permanent Machinery of Arbitration for the Public Sector Undertakings.
- Matters relating to Counselling, Retraining and Redeployment of rationalized employees of CPSEs.

1.9 The Department of Public Enterprises accordingly plays an important role in formulating policies relating to CPSEs and in framing different guidelines on matters relating to CPSEs. In fulfilling its role, the Department coordinates with other Ministries, CPSEs and concerned organizations. Some of the important tasks of the Department are listed below:-

- Co-ordination of matters of general policy of non-financial nature relating to public sector enterprises.
- Issue of Presidential Directives and Guidelines to public sector enterprises.
- Formulation of Policies, pertaining to public sector enterprises, in areas like board structures, personnel management, performance improvement, financial management, wage settlement and vigilance management, etc.
- Investiture and review of Navratna/Mini Ratna status to CPSEs.
- Policy matters relating to composition of Board of Directors of CPSEs, categorization of top posts, scheduling of CPSEs.
- Notification of pay scales of Board level executives as well as below Board level personnel and unionized workers and the DA admissible thereon at periodic intervals.
- Policy relating to deputation of Government officers to public sector enterprises.
- Publication of the annual survey of CPSEs known as Public Enterprises Survey.
- Memorandum of Understanding between the public sector enterprises and the administrative Ministries/Departments.
- Policy relating to Voluntary Retirement Scheme in CPSEs.
- Matters relating to Counselling, Retraining and Redeployment Scheme (CRR) for rationalized employees of CPSEs.
- Matters relating to Board for Reconstruction of Public Sector Enterprises (BRPSE).
- Matters relating to reservation of posts in the public sector enterprises for certain classes of citizens.
- Settlement of disputes through Permanent Machinery of Arbitration (PMA) among Public Sector Enterprises and between Public Sector Enterprises and government departments except disputes relating to tax matters.
- Matters relating to International Centre for Promotion of Enterprises (ICPE).
- Matters relating to Standing Conference of Public Enterprises (SCOPE).
- Matters relating to delegation of powers to Board of Directors.

1.10 Department of Public Enterprises is headed by a Secretary to the Government of India who is assisted by an establishment with an overall sanctioned strength of 130 officers/personnel. The organizational structure of DPE is at **Appendix I.**

Chapter 2
Achievements and Initiatives

2.1 Major achievements during the year

- BHEL achieved a turnover of Rs. 28033 crore during 2008-2009, a growth of 31% over the production of Rs. 21401 crore in 2007-08. BHEL made substantial additions to its order book during the current financial year bagging cumulative orders worth Rs. 1,17,000 crore for execution in 2009-10 and beyond.

Test Bed for Frame 9 FA Gas Turbines at BHEL, Hyderabad

- BHEL and NTPC Limited have incorporated a Joint Venture Company (JVC) to be called "NTPC-BHEL Power Projects Pvt. Ltd.," to execute Engineering, Procurement and Construction (EPC) contracts for Power Plants and other Infrastructure Projects as well as manufacture and supply of equipment in India and abroad. The Certificate of Incorporation of the JVC was presented by CMDs of BHEL and NTPC to the Hon'ble Minister (Heavy Industries & Public Enterprises) and to the Hon'ble Minister of Power on 29.4.2008.
- BHEL signed a Memorandum of Understanding with APGENCO for setting up the Nation's Biggest Integrated Coal Gasification Combined Cycle (IGCC) Power Plant of 125 MW at Vijayawada (A.P.) on 10.5.2008.
- BHEL formally took over Bharat Heavy Plate and Vessels (BHPV) in May, 2008 in Vishakhapatnam (A.P.) in the presence of the Hon'ble Minister (HI&PE), Hon'ble Finance Minister, Urban Development Minister, MOS Power, Hon'ble Chief Minister of Andhra Pradesh and other dignitaries.
- BHEL and Nuclear Power Corporation of India Ltd., (NPCIL) have signed a Memorandum of Understanding (MoU) to form a joint venture company to carry out Engineering, Procurement and Construction (EPC) activities for Nuclear Power Plants, both within the county and outside, on mutually beneficial terms.
- In the presence of Hon'ble Minister (HI&PE), Principal Secretary to Hon'ble Prime Minister and other dignitaries, BHEL signed a Memorandum of Understanding (MoU) with Heavy Engineering

Heavy duty CNC lathe at BHEL, Tiruchirappalli

Corporation Ltd. (HEC) on 6.9.2008 to form a joint venture company on 50:50 equity participation basis to cater to the requirements of castings and forgings of both the companies on mutually beneficial terms.

- Foundation Stone of an Industrial Training Centre (ITC) at Bolpur in West Bengal was laid on 26.10.2008 by the Hon'ble Speaker, Lok Sabha in the presence of Hon'ble Minister (HI&PE) and Hon'ble MOS (Power), aimed at providing high quality technical education. This is being set up at a cost of Rs. 23 crore with assistance from BHEL, Damodar Valley Corporation, Central Electricity Authority and Coal India Ltd.,
- BHEL has secured a number of major orders in the domestic as well as export market. These include:-

(i) An order valued at Rs.3,368 crore for the supply and installation of Main Plant Package at two

Loco under fabrication and assembly at BHEL, Jhansi Plant

power projects in Chhattisgarh, involving 3 Coal based units of 500 MW each, one unit of 500 MW at Korba West Thermal Power Project and two units of 500 MW each at the upcoming Marwa Thermal Power Project in Chhattisgarh . These projects would add 36 million units every day to the grid on commissioning.

(ii) A turnkey contract valued at Rs.1150 crore from HMEL-a Joint Venture of HPCL and L.N. Mittal's Mittal Energy Limited, for setting up of an energy efficient and environment-friendly captive power plant (153 MW) at the upcoming Guru Gobind Singh Refinery at Bhatinda in Punjab.

(iii) A contract valued at Rs.3,588 crore from Pragati Power Corporation Limited (PPCL) for setting up

600 MW Gas turbine-based Western Mountain power project in Libya, set up by BHEL on turnkey basis

another Combined Cycle Power Plant (CCPP) in Delhi on turnkey basis, involving supply and commissioning of four Advanced-class Frame 9FA Gas Turbines.

(iv) A contract valued at Rs.5040 crore from Jindal Power Limited for setting up 2400 MW (4x600MW) thermal power plant at Raigarh in the State of Chhattisgarh.

(v) Formed a Joint Venture Company with Tamil Nadu Electricity Board with a total capital outlay of around Rs. 8,700 crore for execution of the first 2x800 MW supercritical thermal power project in Tamil Nadu to strengthen the power availability in the State.

(vi) Bagged its first commercial orders for 2x660 MW Steam Turbine generator units with supercritical parameters, valued at Rs.1474 crore, from NTPC for Barh Thermal Power Project in Bihar.

(vii) Secured a prestigious export contract valued at Rs.160 crore from International Energy Resources (IER), United Arab Emirates (UAE) for supply of 2 Gas Turbine generating units of 42 MW each.

(viii) Won a turnkey contract valued at Rs.2080 crore for setting up a 400 MW Thermal Power Project in Syria, the highest-value single order ever secured in the Overseas Market.

(ix) Achieved major breakthrough in East Africa by winning a turnkey contract valued at Rs. 400 crore for setting up the Nyaborongo Hydro Electric Power Project (2x14 MW) in Rwanda.

- Filed 175 patents and copyrights during the year, enhancing the company's intellectual capital to 664 patents and copyright filed, which are in productive use in the company's business.
- Floated a Joint Venture Company - Karnataka Power Corporation Limited (KPCL) for setting up Supercritical Thermal Power Projects in Karnataka. The projects identified to be set up by the joint venture company are going to be located at Ediapur and Eramarus of Raichur district of Karnataka.
- Successfully designed, developed and tested 420 kN and 320 kN Porcelain Disc Insulators for 800 kV High Voltage Direct Current Transmission Lines, thus becoming the only supplier in the world for these type of insulators. These insulators have special material composition to perform reliably under HVDC voltages and also required to have different profiles to perform well under polluted conditions.

Space Grade Solar Panels built by BHEL

- Achieved a major milestone with the manufacture and supply of Space Grade Solar Panels to the Indian Space Research Organisation (ISRO) for their first satellite export project for EADS-Astrium of Europe.
- Paid an interim dividend of 90% on the enhanced equity capital for the financial year 2008-09. BHEL presented a cheque of Rs. 298 crore to the Hon'ble Minister, Heavy Industries & Public Enterprises on 21st March, 2008 towards interim dividend on the equity (67.72%) held by the Government of India.
- Signed a Memorandum of Understanding with Kerala Electrical & Allied Engineering Company Ltd., a Govt. of Kerala undertaking for setting up a Joint Venture for manufacture of products for Transportation, Industries and Renewable energy.
- Bagged four major contracts from NTPC, NLC Tamil Nadu Power Ltd. and Mahagenco cumulatively valued at around Rs. 7,000 crore for the supply and installation of main plant equipment for thermal power project with a cumulative capacity of 3,250 MW to be located in the State of Madhya Pradesh, Uttar Pradesh, Tamil Nadu and Maharashtra respectively.
- Through international competitive bidding, secured an order valued at Rs. 3,150 crore from Madhya Pradesh Power Generating Company Limited for installation of two sets of 600 MW each at their upcoming Malwa Thermal Power Project in Madhya Pradesh. The contracts include design, engineering, manufacture, supply erection and commissioning of Steam Turbines, Generators, Boilers and associated Auxiliaries including Transformers, Bus ducts etc.
- As a part of its manufacturing capacity expansion programme, BHEL is setting up a new manufacturing plant at Tirumayam in Pudukottai district of Tamil Nadu at an initial investment of Rs. 250 crore. The plant is expected to provide direct employment to about 750 persons and indirect employment to nearly 3,000 people.
- Won the first ever order for Nuclear Steam Generator for new rating of 700 MW valued at Rs. 345 crore placed by Nuclear Power Corporation of India Limited for their Kakrapara Atomic Power Project in Gujarat.
- Against stiff competition from European MNCs, BHEL has secured a contract valued at Rs. 81 crore, from Powergen Infrastructure for the manufacture and supply of generator transformers for the upcoming 1980 MW Tirora Thermal Power Project of Adani Power Maharashtra Limited.

- BHEL was conferred the maximum number of ICWAI National Awards for the year 2008 for excellence in Cost Management amongst the public and private sector companies at a function organized on 13th March, 2009.
- BHEL was awarded the DSIJ "Most Investor Friendly PSU Award 2009" for the year 2009 as a recognition for its unmatched track record of earning profits and rewarding investors by paying dividends uninterruptedly for over three decades without a break. An interim equity dividend of 90% on the enhanced post bonus equity capital has already been paid for fiscal 2008-09 despite the current tight liquidity situation in the economy.

Restructuring proposals approved in 2008-09

- BIFR in its hearing held on 13.5.2008, approved the Scheme submitted by OA, for transfer of assets, liabilities and manpower of National Instruments Ltd. (NIL) to Jadavpur University, West Bengal.
- Cabinet Committee on Economic Affairs (CCEA), in its meeting held on 26.6.2008, approved financial restructuring of Bharat Wagon & Engineering Company (BWEL) and transfer of the company to the Ministry of Railways. Administrative sanction for financial restructuring and transfer of Bharat Wagon & Engineering Company Ltd. to Ministry of Railways has been issued on 13.8.2008.
- The Cabinet Committee on Economic Affairs (CCEA), in its meeting held on 4.9.2008, approved revival/restructuring package for Heavy Engineering Corporation Ltd. (HEC).
- The Cabinet Committee on Economic Affairs (CCEA), in its meeting held on 6.11.2008, approved the financial restructuring and revival through outright sale after clearing the balance sheet of Tyre Corporation of India Ltd. (TCIL).
- The Cabinet Committee on Economic Affairs (CCEA), in its meeting held on 11.2.2009, approved revival of Instrumentation Limited, Kota (ILK).
- Cabinet Committee on Economic Affairs (CCEA) in its meeting held on 18.3.2009 approved payment of wages/salaries for the period from 1.10.2008 to 31.3.2009 amounting to Rs109.30 crore to 10 loss making CPSEs of DHI and funds have been released to all CPSEs.
- The foundation stone of Silchar Grinding Unit of Cement Corporation of India Limited, located in Silchar (Assam), was laid by the Hon'ble Chief Minister of Assam in the presence of Hon'ble Minister (Heavy Industries & Public Enterprises) in July,2008.
- Engineering Projects (India) Ltd. (EPIL) secured orders valued at Rs. 114.06 crore for (a) Putur Water Supply Improvement Scheme, Putur, Andhra Pradesh, (b) Construction of State Sports Training Centre at Bilaspur, Chattisgarh. EPIL also secured orders worth Rs. 154.26 crore for (i) Construction and Development of New Laboratory Building Complex at Advanced Material and Process Research Institute, Bhopal (MP) and (ii) Construction of Fakhruddin Ali Ahmed Medical College at Barpeta, Assam.
- SIAM and ACMA organized their annual conventions on 3.9.2008 and 4.9.2008 respectively. These conventions were inaugurated by the Hon'ble Minister (HI&PE). The annual convention of SIAM was attended by all major global automobile leaders. During the convention, SIAM also announced a voluntary fuel efficiency labeling programme to be introduced by the automobile vehicle industry with effect from 1.1.2009.
- Department of Heavy Industry had made a presentation in the 146th Session of WP-29 (UN Organization) in Geneva on 12.9.2008 regarding India hosting the 4th Environmentally Friendly Vehicle (EFV) Conference in New Delhi on 23.11.2009 and 24.11.2009. WP-29 unanimously accepted India's request and adopted it as one of its informal agenda items for the next meeting. For the first time, an emerging

economy like India will be hosting EFV Conference. The last three conferences were held in UK, Japan and Germany respectively.

National Seminar on emerging & existing opportunities In the Capital Goods Industry

A National Seminar on emerging & existing opportunities In the Capital Goods Industry was organized by Department of Heavy Industry in association with CII. on 27.02.2009 at New Delhi. The Seminar was addressed by a number of prominent speakers both from the Government and private sector dealing with the Capital Goods Industry. The speakers included Shri Anwarul Hoda, Member Planning Commission, Shri R. Bandhopadhyay, Secretary, DPE, Shri Atul Chaturvedi, Secretary, Department of Fertilizers, Shri Shantanu Consul, Secretary, Mining, Smt. Rita Menon, Secretary, Ministry of Textiles, Shri V.S. Verma, Member CERC and a host of other senior persons from the PSUs and Industry. To have focused discussions, parallel sub-sector specific sessions were also held covering railways and roads, power equipment, process plant, machine tools construction/mining and metallurgic equipment and textile Sectors. Inputs of the different sub-sectors were concluded taking note of the specific issues requiring redressal. Follow up action on the points emerging out of the seminar is in process. The seminar provided important inputs for Government Policy formulation in regard to the Capital Goods Sector.

A one day Workshop on "Results Related Performance Management" was organized on 26.3.2009 in Department of Heavy Industry in association with Cabinet Secretariat.

Department of Heavy Industry (DHI)

Chapter 1

An Overview

Performance of Industry

1.1 Industrial sector registered a growth of 2.4% during 2008-09 as against 8.5% in the last year i.e. 2007-08. The slowdown in the industrial growth during 2008-09, measured in terms of the index of industrial production has been due to a variety of factors including, inter-alia, global financial meltdown and recessionary condition in a number of countries and consequent slowdown of the export-oriented industries. The slowdown in demand for some of the industries such as automobile (including ancillaries), cement, steel and housing has been mainly due to rise in interest rates and non-availability of bank finance. Manufacturing sector recorded a growth of 2.3% in 2008-09 as against 9.0% in last year. The mining and electricity sector posted growth rates of 2.3% and 2.8% respectively during 2008-09.

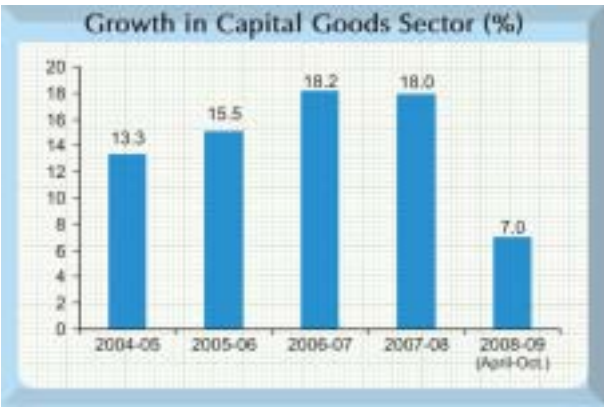
1.2 Capital goods sector has registered a growth of 7.0% during the current year 2008-09 as compared to the growth of 18.0% during corresponding period of last year. Consumer goods, Basic goods and intermediate goods recorded growth of 4.4%, 2.5% and -2.8%, respectively during 2008-09. The use-based classification indicates recovery in the consumer durables sector which recorded a growth of 4. 4% in 2008-09 compared to -1.0% in the corresponding period of the previous year.

INDUSTRIAL GROWTH INDICATORS

(Growth Rate in per cent)

Item	Weight (%)	2006-07	2007-08	2008-09
1	2	3	4	5
Overall	100	11.6	8.5	2.4
Mining & Quarrying	10.5	5.4	5.1	2.3
Manufacturing	79.4	12.5	9.0	2.3
Electricity	10.2	7.2	6.4	2.8
Use Based Classification				
Overall	100	11.6	8.5	2.4
Basic goods	35.6	10.3	7.0	2.5
Capital goods	9.3	18.2	18.0	7.0
Intermediate goods	26.5	12.0	9.0	-2.8
Consumer goods	28.7	10.1	6.1	4.4
Durables	5.4	9.2	-1.0	4.4
Non-durables	23.3	10.4	8.6	4.4

Source: Central Statistical Organization.



1.3 The Department of Heavy Industry deals with the following 19 Industrial Sub-sector:

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

1.4 One of the major industrial sectors in India is the automotive Sector. Consequent to the liberalization, the automobile sector has registered substantive growth and has been aptly described as the sunrise sector of the Indian economy. The sector output is equivalent to 5% of the national GDP and employs up to 11 million people. The Indian automobile industry which has been growing at approximately 10% during the last five years, witnessed a growth of (-) 4% in sales in 2007-08 and is witnessing a slump presently. The overall domestic sales of vehicles in October, 2008 and November, 2008 have declined by 14% and 18% respectively over corresponding period last year (CPLY). In November, 2008, all the segments of the automobile industry i.e. the passenger vehicles, commercial vehicles, two wheelers and three wheelers have shown major decline in sales of (-) 24%, (-) 50% and (-) 23% respectively over CPLY.

1.5 Production and growth rates of some of the prominent heavy industries dealt by the Department of Heavy Industry for the period 2008-09 as compared to 2007-08 are given below:

Industry	Unit	Production		Growth
		2007-08	2008-09	Rate (%)
Industrial machinery	Rs.Lakhs	355892.3	515431.6	44.83
Machine Tools	Rs.Lakhs	269144.6	242816.7	-9.78
Boilers	Rs.Lakhs	823134	1015393	23.36
Turbines (Steam/Hydro)	Rs.Lakhs	351814.3	419300.4	19.18
Electric generators	Rs.Lakhs	147415.98	177809.5	20.62
Power distributiontransformers	Mill. KVA	73.26	71.86	-1.91
Telecommunication cables	Mill. Mtr.	8013.2	7050.68	12.0
Commercial vehicles	Numbers	545104	416491	-23.59
Passenger cars	Numbers	1421984	1516791	6.67

Source; Department of IPP

1.6 Measures to improve performance

Government has announced two stimulus packages during the current financial year to boost demand and industrial growth. The salient measures included in the packages are listed below:-

(i) An across the board cut of 4% in ad-valorem Cenvat rate except for petroleum products,

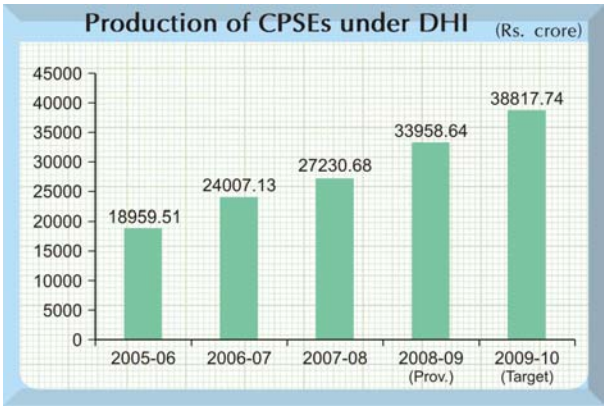
(ii) Authorizing Indian Infrastructure Finance Company Limited (IIFCL) to raise Rs. 10,000 crore to refinance bank lending for infrastructure projects,

(iii) Extension of the DEPB Scheme till 31.12.2009, enhancement of duty drawback benefits on certain items including knitted fabrics, bicycles, agricultural hand tools and specified categories of yarn, providing pre-shipment and post-shipment credit, in rupees or dollars, to Indian exporters at competitive rate to boost exports,

(iv) States to be provided (as a one-time measure up to 30.06.2009), assistance under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) for the purchase of buses for their urban transport systems,

(v) Accelerated depreciation of 50% will be provided for commercial vehicles to be purchased on or after 1.1.2009 up to 31.3.2009.

1.7 CPSEs under the Department of Heavy Industry



1.7.1 The CPSEs under the Department are engaged in manufacturing, consultancy and contracting services. There were 48 CPSEs as on 31.3.2008 under the administrative control of the Department. The merger scheme of PTL with HMT (MT) Limited has been approved by BIFR on 12.6.2008. Bharat Wagon & Engineering Company Limited (BWEL) has been transferred to Ministry of Railway on 13.8.2008 and NIL has been transferred to Jadavpur University, Kolkata on 7.1.2009. Thirteen CPSEs have either been closed or are not in operation thus leaving the Department with 32 operating CPSEs.

1.8 The total investment (Gross Block) in the 32 operating CPSEs under the Department was Rs. 11751.28 crore as on 31.3.2009 as per details given at Annexure-III. The total number of employees in these CPSEs is about 92831; the number of SC/ST/OBC employees is 14822, 8404 and 14898 respectively as per details at **Annexure-IV.**

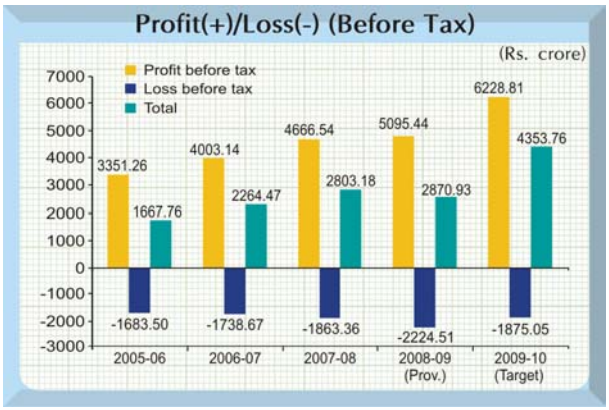
1.9 Out of the 32 CPSEs during 2008-09, 16 made profit and the remaining 16 are incurring loss. However, on an aggregate basis, 32 CPSEs of DHI have shown a net profit before tax of 2870.93 crore in 2008-09 (provisional). The aggregate performance of these CPSEs during April-March, 2009 is as under:

(Rs. crore)

	2008-09 (prov.)	2009-10 (Target)
Production	33958.64	38817.74
Profit (+)/Loss(-)	(+) 2870.93	(+) 4353.76

(CPSE-wise details of production, profit/loss are enclosed at **Annexure-V & VI** respectively.)

The loss making enterprises suffer from a number of factors including poor order book, shortage of working capital, surplus manpower and obsolete plant and machinery, besides increase in the cost of inputs etc.



Several of these loss making CPSEs have problems of large work force and huge overheads far above the industry norms. In this context, salary/wage bill and social overheads as percentage of turnover are given at **Annexure-VII.**

During the year, BHEL has witnessed substantial improvement in its order book. The Company received orders of about Rs. 59687 crore in 2008-09. Fiscal 2008-09 has ended with a cumulative order book for execution in 2009-10 and beyond of Rs. 1,17,000 crore **(Annexure -VIII).**

Major exporting CPSEs are BHEL, IL, HPC and HMT, details of export performance of CPSEs under DHI are given at **Annexure-IX.** Details of Government equity, net worth and accumulated loss/profit of these PSEs are given at **Annexure-X.**

1.10 Restructuring of CPSEs

The Department undertakes and encourages restructuring of CPSEs under its administrative control in line with the overall Public Sector

Policy of the Government. The profit making CPSEs are being strengthened by providing greater autonomy and the loss making CPSEs are being considered for revival/closure. Accordingly, a fresh look to identify companies under the department which can be restructured and revived has been undertaken in consultation with the Advisers/CPSEs. Board for Reconstruction of Public Sector Enterprises (BRPSE) has given its recommendations in 26 cases referred to them.

Government has given its approval for revival/ restructuring plans of 15 CPSEs under DHI during 2004-09 involving fresh cash infusion of about Rs. 1500 crore. These CPSEs employ about 30,000 persons. These CPSEs are:

(i) Bharat Pumps and Compressors Ltd. (BPCL),

(ii) Bridge & Roof Co. Ltd. (B&R),

(iii) Braithwaite and Company Ltd. (BCL),

(iv) Braithwaite, Burn & Jessop Construction Co. Ltd. (BBJ),

(v) Heavy Engineering Corporation Ltd. (HEC),

(vi) Praga Tools Ltd. (PTL),

(vii) Hindustan Salts Limited (HSL),

(viii) Cement Corporation of India Ltd.(CCI),

(ix) HMT (Bearing) Ltd. [HMT(B)],

(x) HMT Machine Tools [HMT(MT)],

(xi) Andrew Yule & Company Ltd. (AYCL),

(xii) Bharat Heavy Plates & Vessels Limited (BHPV)- Taken over by BHEL on 7.5.2008.

(xiii) Bharat Wagon & Engineering Company Ltd. (BWEL)- Transferred to Ministry of Railways on 13.8.2008.

(xiv) Tyre Corporation of India Limited (TCIL),

(xv) Instrumentation Limited (IL)

Besides, in case of two CPSEs, namely Bharat Ophthalmic Glass Ltd.(BOGL) and Bharat Yantra Nigam Ltd. (BYNL), closure has been approved by the Government. In the case of National Instruments Ltd., Government has transferred assets and liabilities to Jadavpur University, Kolkata. Details of financial package approved by the Government for the 15 CPSEs mentioned above are at **Annexure-XI.**

1.10.1 The Department provides financial support to the CPSEs in consultation with the Ministry of Finance and Planning Commission for meeting their investment needs and implementation of restructuring plans of sick/ loss making CPSEs sanctioned by the Government/BIFR.

1.11 Plan Programmes of CPSEs

1.11.1 The plan programmes of CPSEs under DHI are mainly for NATRiP, U.P. Paper Mill, Nagaland Pulp and Paper Mill, Capital Goods scheme and for improving the capacity utilization of facilities, and renewal and replacement to meet the emerging customer needs. Annual Plan 2008-09 provided a Budgetary Support of Rs. 350 crore against which an expenditure of Rs. 191.71 crore was incurred till March,2009. For the year 2009-10, Planning Commission have agreed for a provision of Rs. 350 crore by way of Budgetary Support. Some of the major schemes under implementation include:

(i) National Automotive Testing and R&D Infrastructure Project (NATRiP)

Government has approved the setting up of the project NATRiP, at a cost of Rs. 1718 crore for developing testing infrastructure to support the growth of automotive industry. The project is aimed at meeting the facilities gap in regulatory and developmental requirement in the automotive industry by investment in high speed test tracks, comprehensive testing validation, emerging emission and safety norms etc. at different sites in the country. Land acquisition is progressing well at Manesar while other sites have already been taken possession of at Silchar, Chennai and

Indore. At Pune, additional land is already available after clearance from the Forest and Environment authorities. At Rae Bareilly, the land allotment is under consideration of the State Government. The work on detailed designing of facilities in the centres is completed as per schedule and the process has been initiated for ordering of equipments and civil construction works. The Silchar – Dholchura campus is ready for commissioning with the completion of all civil works like the Facility Building and the Hill Road track at Site-I Dholchura. A state of the art "Driving Simulator" has been installed for hill area driving training. At VRDE Ahmednagar, the EMC lab facility has been set up for industry use, while the ABS brake test pad is under construction, for completion by December, 2009.

(ii) Integrated Gasification Combined Cycle Project (IGCC)

An R & D Project on Integrated Coal Gasification which offers the benefits of very low emission, higher efficiency, and has the potential for lower cost of electricity generation has been under consideration for the last few years. BHEL is now taking up this project at Vijaywada with Andhra Pradesh Power Generation Company (APGENCO) and has signed an MOU with APGENCO for setting up of the country's biggest 182 MW IGCC Plant. A token Provision of Rs. 1 lakhs has been made in the Annual Plan 2009-10 for the purpose.

(iii) U.P.Paper Mill Project of HPC

Government has accorded approval to HPC to set up new manufacturing facilities in the Northern Region at Jagdishpur, U.P., through a subsidiary company, to meet the gap between demand and indigenous supply of paper. The capacity of new paper plant will be 3 lakhs TPA at an estimated cost of Rs.3100 crore. A new Company has been registered as Jagdishpur Paper Mills Ltd., (JPML) on 8.5.2008.There was a provision of Rs. 78 crore of budgetary support for this project in Annual Plan 2008-09. However, no funds could be utilized as the land is yet to be acquired. For the year 2009-10, an amount of RS. 5 crore has been provided.

(iv) Revival of NPPC, Nagaland

Govt. has approved the revival of NPPC at a cost of Rs. 552 crore. Implementation of the revival scheme is in progress which will be continued in 2009-10. A token provision of Rs. 0.01 crore has been made in 2009-10. Budgetary support of Rs. 28.22 crore (For North East Region) has been provided in 2009-10.

(v) Expansion of facilities at Hindustan Newsprint Ltd. (HNL)

HNL is implementing an expansion-cum diversification project for a capacity of 170,000 tonnes of writing and printing paper at a cost of Rs. 718 crore. The project is being funded fully from internal and extra budgetary resources.

(vi) Expansion of BHEL facilities

BHEL has embarked upon a plan of enhancing its manufacturing capacity and capability for preparing itself to meet the country's power demand, for providing "Power to all by 2012" and to contribute fully for meeting the power forecast of the 11th Plan and beyond. Towards this end, BHEL has been augmenting its capacity and capability and has already enhanced its power generating equipment manufacturing from 6000 MW in 1999-2000 to 10,000 MW per annum w.e.f. 1st January, 2008. This manufacturing capacity is being further enhanced to 15,000 MW per annum by end of December, 2009 with an investment of approximately Rs.4200 crore, which is funded entirely through internal resources. This will further go up to 20,000 MW per annum by December, 2011.

(vii) Support to Capital Goods Industry

The Indian Capital Goods industry has experienced excellent growth during 2002-03 to 2007-08. The capital investment made in this sector has also registered a healthy CAGR of about 10% during the period 1997 to 2007. However, of late the growth has slowed down considerably. The sector posted 7.0% growth in the year 2008-09 as against 18.0% in 2007-08. The industry now needs to strategize its future to maintain its growth momentum. In this regard, DHI had mandated a study done by CII and a number of its recommendations are proposed to be pursued through a modernization scheme. The scheme is intended to take some policy initiatives for development and growth of this sector. Initially, this effort would cover five major CG sectors , viz. Heavy Electrical Equipment, Process Plant Machinery, Mining and Construction Equipment, Textile Machinery and Machine Tool industries which together account for 65% of the total capital goods production in the country. The scheme is awaiting approval.

1.12 Autonomy to PSEs/Navratnas and Miniratnas

1.12.1 BHEL is one of the Navratna CPSEs. The Board of the Company has been strengthened by induction of outside qualified professionals. Navaratna CPSEs have been provided greater autonomy in respect of capital expenditure, formation of strategic alliances and formulation of HRD policies etc.

1.12.2 Besides BHEL, which is a Navratna Company, four CPSEs under DHI namely REIL, HNL, EPI and HMT (I) have been categorized as Miniratnas. Miniratna CPSEs have also been empowered with enhanced delegation.

1.13 Memorandum of Understanding (MOU)

1.13.1 With a view to giving greater autonomy to the public sector enterprises and making them accountable for achievement of their objectives, all the CPSEs under the Department signed MOUs with Government of India for the year 2009- 10.

1.14 North Eastern Region

1.14.1 Out of the 32 operating Central 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.

1.14.2 These CPSEs/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 in the past 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. Restructuring/revival plan of NPPC involving a total cost of Rs. 570 crore has been approved by the Govt. and further action is in hand. NPPC is now out of the purview of BIFR, following approval of the package for revival of NPPC on 27.06.2007. The Government has provided a budgetary support of Rs. 55.83 crore during the 10th Plan period for investments made in these CPSEs. Tentative budgetary support for the 11th Plan period is Rs.314.33 crore.

1.15 Citizens Charter

The Department of Heavy Industry is committed to the goal of effective and responsive administration. Following steps have been taken in this direction:

(i) In an effort to streamline the system of redressal of public grievances and staff grievances, a Joint Secretary and a Director, in this Department are functioning as Joint Secretary (Public Grievances) and Director (Staff Grievances) respectively, to ensure that the grievances are redressed in time.

(ii) In an effort towards computerization of all work in the Department, a Joint Secretary has been designated as IT Manager who will also be responsible for updating the websites 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.

(v) 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 quality and justice to working women employees, a Complaints Committee has been constituted in this Department for redressal of complaints related to sexual harassment of women.

(vi) Further, this Department actively encourages women employees to freely participate in all activities like meetings, seminars, competitions and training etc. This helps in ensuring their integration into the mainstream work force.

(vii) The Annual Reports of the Department (both in English and Hindi) and other important information including initiatives and new policies are made available on the web-site of the Department, www.dhi.nic.in

(viii) An officer of the rank of Deputy Secretary has been designated as CPIO to provide information under the RTI Act.

(ix) An officer of the rank of Director in the Department has been nominated as liaison Officer for the matters relating to SCs/STs/ OBCs in the Department and CPSEs under its control.

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

(xi) Efforts are made by the CPSEs to follow the instructions issued by the Government from time to time to promote the welfare of persons with disabilities. Persons with disabilities are provided facilities like special conveyance allowance, preferential residential accommodation wherever possible, and additional amenities and facilities to enable them to discharge their duties and facilitate their integration into the mainstream workforce.

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

As per the requirement stipulated by the CAG, summary of important audit observations of CAG of India on the working of the Department of Heavy Industry is given in **Annexure–XII.**

Chapter 2

CPSEs under DHI

2.0 Department of Heavy Industry has 48 Central Public Sector Enterprises (CPSEs) under its administrative control, out of which 13 CPSEs have been closed are not in operation. Two PSEs namely Bharat Wagon and Engineering Company Limited (BWEL) and National Instruments Limited (NIL) have been transferred to Ministry of Railways on 13.08.2008 and to Jadavpur Universality, Kolkata on 07.01.2009 respectively. The merger scheme of Praga Tools Limited (PTL) with Hindustan Machine Tools Limited (HMT (MT) has been approved by BIFR in the hearing held on 12.06.2008, thus leaving the Department with 32 operating PSEs. A brief write up on these CPSEs is given below:

2.1 ANDREW YULE & CO. LTD. (AYCL)

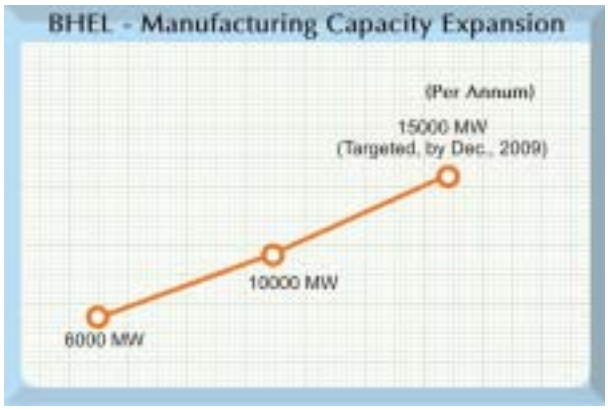
The company is engaged in manufacture, sales and servicing of various industrial products like industrial fans, tea machinery, air pollution control equipment, electrical equipments including switchgears, circuit breakers, etc. In 1986, six tea companies having 12 tea gardens in West Bengal and Assam, engaged in cultivation, manufacture and processing of tea, became a part of AYCL. Transformers and Switchgears Ltd., Madras and Brentford Electric (India) Ltd., Calcutta were also nationalized and vested in Andrew Yule & Company Ltd. The Andrew Yule Group includes a subsidiary, M/s Hooghly Printing Company Ltd, and two major associate companies namely Dishergarh Power Supply Company Ltd (since renamed as DPSC Ltd) and Tide Water Oil Company Ltd. The company's Belting Division was converted into a joint-venture company in February 1999 with M/s Phoenix, AG Germany acquiring 74% of the equity and AYCL retaining 26% of the equity in the new company. The company became sick and was referred to BIFR. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP); BRPSE's recommendations for restructuring of the company have been considered and a revival/ restructuring package has been approved by the Govt. on 22.02.2007. The company has ended the year 2008-09 with a production of Rs. 181.01 crore (provisional).

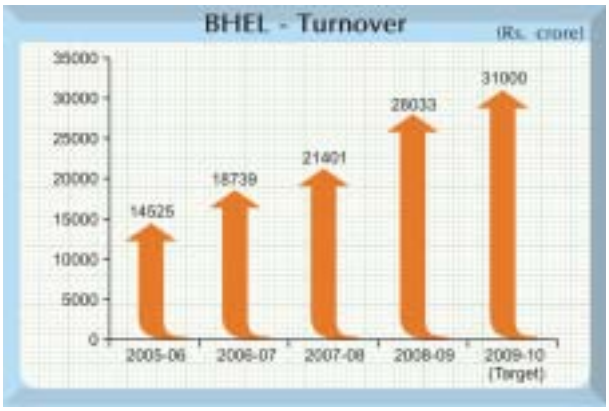
2.2 HOOGHLY PRINTING COMPANY LTD.

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 profit making subsidiary of Andrew Yule & Co. Ltd. The turnover of the company in 2008-09 (prov.) has been Rs. 6.58 crore.

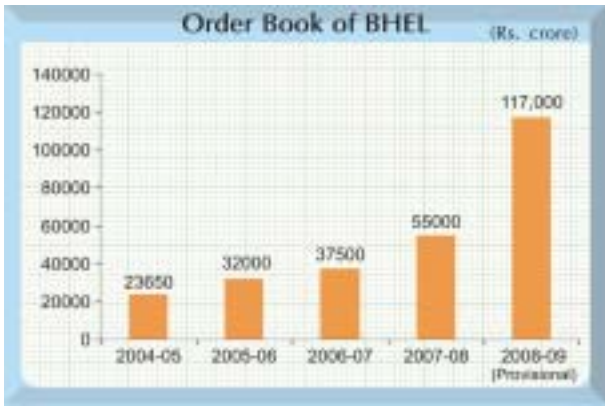
2.3 BHARAT HEAVY ELECTRICALS LTD.

The company was established for specially catering to the power generation & transmission equipment needs of the country.





BHEL today is the largest engineering and manufacturing enterprise of its kind in India and is one of the leading international companies in the field of power equipment manufacture. It has 14 manufacturing plants, 8 service centers and 4 power sector regional centres besides project sites and regional offices spread all over India and abroad.



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 has drawn up a 'Strategic Plan 2012' for ensuring a sustainable profitable growth over the next five years with the objective of reaching a turnover level of Rs.45,000 crore by 2012. This includes expansion of manufacturing capacity for power generating equipment from the present 6000 MW p.a to reach 15,000 MW p.a. by 2012. Besides capacity augmentation in the areas of Thermal, Gas, Hydro and Nuclear, other major areas of investment include the facilities for Nuclear Turbines upto 700/1000 MW , Advanced Class Gas Turbines, 765 KV transformers and augmentation of transformer capacity from 20500 MVA to 38500 MVA.

During the year, BHEL has witnessed substantial improvement in its order book. The Company received orders of about Rs. 59,687 crore in 2008-09. Fiscal 2008-09 has ended

with a cumulative order book, for execution in 2009-10 and beyond, of Rs. 1,17,000 crore

- Order for 600-660 MW sets at N. Chennai and Barh.
- Orders for 500 MW sets at Koderma, Jhajjar, Durgapur Steel Plant, Ennore, DSP, Ukai Maithon Anpara 'D' Korba west etc.;
- Orders for 250 mw sets for Sikka, Nabinagar, Bongaigaon, Satpura etc;

- Orders for Hydro sets of different capacities for Teesta Low Dam, Srinagar, Chutak, Maheshwar, Nimoo Bazgo, Tapovan Vishnugarh etc.;
- Orders for gas Nagothane, Hazira, Pipava, Baramura etc.
- Order for 1 X 500 MW Nuclear power set at Kalpakkam

The company has ended the year 2008-09 (prov.) with a turnover of Rs. 28033 crore.

2.4 BHARAT BHARI UDYOG NIGAM LTD.

Bharat Bhari Udyog Nigam Ltd. (BBUNL) was incorporated as a holding company in 1986, with the following subsidiary companies:

(i) Burn Standard Company Ltd. (BSCL)

Subsidiaries :

(a) Bharat Brakes & Valves Ltd. (BBVL) (since closed).

(b) RBL Ltd. (RBL) (since closed)

(ii) Bharat Wagon & Engineering Company Ltd. (BWEL) – Since transferred to Ministry of Railways

(iii) Braithwaite & Company Ltd. (BCL)

(iv) Bharat Process & Mechanical Engineers Ltd. (since closed)

Subsidiaries :

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

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

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

The aggregate production of all the operating subsidiaries of the holding company has been Rs. 426.78 crore in 2008-09 (prov.).

2.5 BURN STANDARD COMPANY LTD.

Consequent upon the nationalization of the erstwhile Burn & Company Ltd. and the Indian Standard Wagon Company Ltd., Burn Standard Company Ltd. (BSCL) was incorporated in 1976. The company has two large engineering units at Howrah and Burnpur in West Bengal besides eight refractory and ceramic units located in Bihar, West Bengal, Tamilnadu and Madhya Pradesh. The major products being manufactured by BSCL include wagons, structurals, points and crossings, bogies, ash handling plant, coal handling plant etc. The company is sick and is under reference to BIFR. 7 loss making refractory units and Jellinghum Yard of the company have been closed following the permission granted by the Competent Authority. The company's future is being reviewed in the light of overall Public Sector Policy of Government of India. The production of the company during the year 2008-09 (prov.) has been Rs. 233.20 crore.

2.6 BRAITHWAITE & COMPANY LIMITED

Consequent upon nationalization, the Braithwaite and Company (BCL) was taken over by Govt. in 1976. The company has three manufacturing units viz., (i) Clive Works, (ii) Victoria Works and (iii) Angus Works, which are engaged primarily in the manufacture of Railway Wagons, steel structurals, and general and special purpose cranes including Container Handling Cranes, Rail-Mounted Diesel Loco Break down Cranes, Jute Carding Machines and Roll Feeders for the Jute industry, etc. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP) and a revival/ restructuring plan has been approved by the Government. Subsequently, BIFR, vide order dated 29.06.2006 has discharged BCL from the purview of BIFR and BCL ceased to be a sick industrial company. The production of the company during the year 2008-09 (prov.) has been Rs. 126.01 crore.

2.7 BRAITHWAITE, BURN & JESSOP CONSTRUCTION CO. LTD.

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

Bridge over River Mahanadi (Orissa) constructed by The Braithwaite Burn and Jessop Construction Co. Ltd.

became a subsidiary of Bharat Bhari Udyog Nigam Ltd., (BBUNL). The company is engaged in construction of steel bridges, marine structures and jetties etc. The company has also diversified into marine related activity. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP) and a restructuring plan for the company has been approved by the Govt. on 16.06.2005. The turnover of the company in 2008-09 (prov.) has been Rs. 67.57 crore.

2.8 BHARAT YANTRA NIGAM LTD.

Bharat Yantra Nigam Ltd. (BYNL), was incorporated as a holding company in 1986, with following subsidiaries.

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

Government has approved the closure/winding up of BYNL, the holding company.

2.9 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. The company has been making losses for the last few years and was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP). Government approved "in principle" takeover of BHPV by BHEL subject to certain conditions. Accordingly, BHPV has been taken over by BHEL. Production of the company for the year 2008-09 (prov.) has been Rs. 70.82 crore.

2.10 BHARAT PUMPS & COMPRESSORS LTD.

Bharat Pumps & Compressors Ltd. (BPCL) was incorporated in 1970 at Naini, Allahabad. The

View of SKM pump for IOCL of BPCL

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 was reviewed in the light of Public

View of HM compressor for Oil India Ltd. of BPCL

Sector Policy under National Common Minimum Programme (NCMP) and a restructuring plan for the company has been approved by the Government on 07.12.2006. The production of the company for the year 2008-09 (prov.) has been Rs. 237.43 crore.

2.11 BRIDGE & ROOF COMPANY (INDIA) LTD.

Bridge & Roof Company (India) Ltd. (B&R) was initially a subsidiary of Balmer Lawrie & Co. Ltd. Subsequently, through investment of additional equity capital of Rs. 1.74 crore by Government of India in 1978, B&R became a

Erection, Testing and Commissioning of Boiler Main (130 MT at Elevation 56M) at 1x210 MW Mejia TPS (Unit-IV) of DVC by B&R

Govt. company. The administrative control of this company was transferred to this Department from Ministry of Petroleum in June, 1986. The company's operations cover fabrication of medium and heavy structures, civil engineering works in respect of buildings, concrete bridges, project civil work, cooling towers, mechanical erection of complete plants for refineries, fertilizers, chemicals, steel, aluminium, etc. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP) and a restructuring plan has been approved by the Government on 25.08.2005. The turnover of the company during the year 2008-09 (prov.) has been Rs. 935.07 crore.

2.12 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 company is sick and under reference to BIFR. In July, 2003, the BIFR passed the orders for winding up of R&C. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP). The company's production during the year 2008-09 (prov.) has been Rs. 209.94 crore.

2.13 TRIVENI STRUCTURALS LTD.

Triveni Structurals Ltd. (TSL) was incorporated in 1965. The company has facility for manufacture of heavy steel structural products, such as tall towers and mast for power transmission, communication and T.V. broad-casting, hydro-mechanical equipment, pressure vessels etc. The company became a subsidiary of BYNL in April, 1987. The company is sick and stands referred to BIFR. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP). BRPSE's recommendations for restructuring of the company are under consideration of the Govt. The company's production during 2008-09 (prov.) has been Rs. 4.65 crore.

2.14 TUNGABHADRA STEEL PRODUCTS LTD.

The company was established in 1960 as a joint enterprise of the Governments of Karnataka and Andhra Pradesh. Tungabhadra Steel Products Ltd. (TSP) became a subsidiary

of BYNL in April,1987. The company has facilities for design, manufacture and erection of hydraulic structures, penstocks, building structures, transmission line towers, EOT & gantry cranes, etc. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP). The production of the company has been Rs. 1.44 crore during 2008-09 (prov.).

2.15 HINDUSTAN CABLES LTD.

Hindustan Cables Ltd. (HCL) was set up in 1952 as the first telecommunication cable manufacturing unit in the country. The company has units in Rupnarainpur, West Bengal; Naini, Allahabad, U.P. & Hyderabad, Andhra Pradesh. The company has facilities for manufacture of a wide range of telecommunication cables and wires and had been catering to the needs of sectors like Railways, Defence, and Communication etc. HCL is sick and is under reference to BIFR. The company is being reviewed in the light of overall Public Sector Policy of Government of India. Further action will be taken on receipt of recommendations of BRPSE.

2.16 HEAVY ENGINEERING CORPORATION LTD.

Heavy Engineering Corporation Ltd. (HEC), Ranchi was incorporated in December, 1958 with the primary objective of achieving self-sufficiency and self-reliance in the field of design and manufacture of equipment and machinery for the Iron and Steel Industry and other core sector industries like, Mining, Metallurgy etc. It has three manufacturing units namely – Heavy Machine Building Plant (HMBP), Heavy Machine Tools Plant (HMTP) and Foundry Forge Plant (FFP). The company manufactures a wide range of 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 was sick and under reference to BIFR. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP) and a revival/ restructuring plan has been approved by the Government in December 2005. The company's production during the year 2008-09 (prov.) has been Rs. 412.63 crore.

HEC manufactured and supplied 200/30T EOT Crane and Folding-cum-Vertically Repositionable Platform (FCVRP) to ISRO in Nation's Second Launch Pad Project for Launching Medium and Heavy Size PSLV and Medium Size GSLV. Facilities supplied by HEC were utilized for assembly of the Satellites before Launching. HEC also supplied 10T Tower Crane which is installed at 80m Height i.e. on the Top of Umbilical Tower and is used during launching of satellites. These facilities were used in Chandrayan-1 Project. HEC also

HEC supplied Tower Crane for Chandrayan-1

has the proud privilege to supply 400/60T EOT Crane, FCVRP, Horizontal Sliding Door and Mobile Launching Pad for GSLV Mark-III project. With this India will have facilities for launching larger size of GSLV MARK-III.

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

HMT Ltd., Bangalore was set up in 1953 having facilities to manufacture Machine tools, Watches, Tractors, Printing machinery, special purpose machines, presses and dairy machinery. The Company's Turnaround plan approved by the Government in July, 2000 envisaged Organizational Restructuring by

HMT Tractor Business Group participated in India's Premier Biennial Agro Technology Fair from November 28, 2008 to December 1, 2008 at Chandigarh

conversion of Business Groups into four new separate subsidiary companies. The Company has been restructured into HMT Limited, (the Holding Company) with Tractor Business in its fold, HMT Machine Tools Limited, HMT Watches Limited & HMT Chinar Watches Limited. Besides, the company has two wholly owned subsidiaries namely HMT (International) and HMT (Bearings) Ltd. and one partly owned subsidiary, Praga Tools Ltd. The Tractor Division of HMT commenced its operations in 1971 with the manufacture of Tractors at the manufacturing plant established in Pinjore, Haryana. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP). BRPSE has given its recommendations for restructuring/revival of the company which are under consideration of the Govt. The production of HMT Holding Company (Tractors Division) has been Rs. 134.34 crore during 2008-09 (prov.)

2.18 HMT MACHINE TOOLS LTD.

HMT Ltd., the pioneer in Machine Tools Industry in India and manufacturer of a diversified range of products has incorporated "HMT MACHINE TOOLS LIMITED" as its fully owned subsidiary in 1999. It has manufacturing units at different locations. All the manufacturing units of HMT-MT Ltd. are ISO 9001 certified. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP) and Govt. has given its approval on 01.02.2007 for restructuring/ revival of the company. The production of

HMT CNC Cylindrical Grinding Machine

the company in 2008-09 (prov.) has been Rs. 188.12 crore.

2.19 HMT WATCHES LIMITED

HMT Watches Limited, manufactures mechanical and quartz watches. The company has 3 manufacturing units at Bangalore, Tumkur and Ranibagh. All its manufacturing units have obtained the ISO 9001 certification. The product range of HMT Watches Ltd.

Watches manufactured by HMT (W) Ltd.

caters to different segments of the market. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP). BRPSE's

recommendations for restructuring revival of the company are under consideration of the Govt. The production of the company during 2008-09 (prov.) has been Rs.15.35 crore.

2.20 HMT CHINAR WATCHES LIMITED

HMT Chinar Watches Limited manufactures mechanical watches. The company has one manufacturing unit at Srinagar, J&K and an assembly unit at Jammu. The company's registered office is located in Jammu. The company is being reviewed in the light of overall Public Sector Policy of Government of India. The production of the company in 2008-09 (prov.) has been Rs. 0.40 crore.

2.21 HMT (BEARINGS) LTD.

HMT (Bearings) Ltd. (erstwhile Indo-Nippon Precision Bearings) was established in the year 1964 as a state public sector company. In 1981, this company became a central public sector enterprise as a subsidiary of HMT Ltd. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP) and a restructuring/revival plan for HMT (Bearings) Ltd. has been approved by the Govt. on 03.11.2005. The production of the company during the year 2008-09 (prov.) has been Rs. 7.01 crore.

2.22 HMT (INTERNATIONAL) LTD.

HMT (I) Ltd. was established in December, 1974 as a trading company for giving greater thrust to exports of the products of the parent company, HMT Ltd. The major items for exports are machine tools, watches and other associated products which are being exported to various countries. The turnover of the company during the year 2008-09 (prov.) has been Rs. 16.25 crore.

2.23 INSTRUMENTATION LTD.

Instrumentation Ltd., Kota (IL) was set up in 1964. The company has manufacturing units

IL manufacturing facilities

at Kota, Rajasthan, and Palakkad, Kerala and also has a subsidiary namely, M/s Rajasthan Electronics and Instruments Ltd. (REIL) at Jaipur. The company is engaged in manufacture of micro processor based digital distribution control systems, advanced electronic transmitters, fault tolerant control systems, railway signaling systems, telecommunication equipment etc. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP). The restructuring/revival plan for the company was approved by the Govt. in 2009. The production of IL in the year 2008-09 (prov.) has been Rs. 255.80 crore.

2.24 RAJASTHAN ELECTRONICS & INSTRUMENTS LTD.

Rajasthan Electronics & Instruments Ltd. (REIL) was set up in 1981 as a Joint Venture of

SPV Grid Interactive Power Plant (50 KWp) for boosting grid tail-end voltage manufactured by REIL

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. The company is a subsidiary of IL, which holds 51% of its equity. Remaining 49% of the equity is being held by RIICO, Govt. of Rajasthan. By virtue of its financial performance, the CPSE has gained the status of 'Miniratna'. The production of the company during the year 2008-09 (prov.) has been Rs. 72.10 crore.

2.25 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 till 2005-06.The company has come out of the purview of BIFR w.e.f April,2006. Recognising that the performance of the company is not commensurate with the growth trends in the auto sector, Government has since sanctioned a project for product improvement, manpower training and up-gradation of facilities for testing and evaluation at SIL at a total cost of Rs.18.63 crore. The company has achieved a production of Rs. 117.48 crore during 2008-09.

2.26 CEMENT CORPORATION OF INDIA LTD.

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

View of Tandur Cement Factory of CCI

to various reasons. The company became sick and was referred to BIFR. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP) and a restructuring/revival plan approved by the Govt. is under implementation. The production for the year 2008-09 (prov.) in the running units has been Rs. 365.17 crore.

2.27 HINDUSTAN PAPER CORPORATION LTD.

Hindustan Paper Corporation Ltd. (HPC), incorporated in 1970, is engaged in manufacture of paper, paperboards, Craft Paper and newsprint. HPC is a Holding company and has 2 subsidiaries and two major integrated pulp and paper mills under its control as given below. HPC has been re-categorized as a Schedule 'A' PSE and HNL as Schedule 'B' PSE.

Subsidiaries of HPC

a) Hindustan Newsprint Ltd. (HNL)

b) Nagaland Pulp & Paper Company Ltd. (NPPC).

Units of HPC

(i) Nagaon Paper Mills (NPM)

(ii) Cachar Paper Mills (CPM)

The capacity utilization of HPC's Mills (CPM &NPM together) was 104 % during 2006-07 and is expected to improve further to 105 % in 2007-08. The production of the company (NPM and CPM) during the year 2008-09 (prov.) has been Rs.657.37 crore. The

company paid a dividend of Rs. 13.10 crore to the Government for the year 2007-08 and also redeemed Rs. 2 crore Redeemable Preference shares during 2008-09. Government has approved in Nov.2007 the proposal of HPC for setting up of 3 lakh tonnes per annum UP Paper Mill Project at Jagdishpur at a completion cost of Rs. 3100 crore.

2.28 NAGALAND PULP & PAPER COMPANY LTD.

Nagaland Pulp & Paper Company Ltd. (NPPC) is a subsidiary of Hindustan Paper Corporation (HPC). HPC holds 94.78% of the equity shares and the Government of Nagaland holds the balance 5.22%. There is no production activity in the plant. BIFR recommended winding up of the company. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP) and a restructuring/revival plan, involving an estimated cost of Rs. 552.44 crore approved by the Govt. is now under implementation.

2.29 HINDUSTAN NEWSPRINT LTD.

Hindustan Newsprint Ltd. (HNL) originally started as a unit of HPC was converted into a wholly owned subsidiary of HPC in August, 1983. This mill with an annual capacity of 1 lakh MT is located in the State of Kerala and is engaged in the production of newsprint. HNL has launched its expansion cum diversification plan to produce writing and printing paper with flexibility to switch over to newsprint for additional production capacity of 170,000 tonnes of paper at an estimated cost of Rs. 718.80 crore. The production of the mill during the year 2008-09 (prov.) has been Rs. 344.77 crore.

2.30 HINDUSTAN PHOTO FILMS MANUFACTURING COMPANY LTD.

Established in 1960, the company is engaged in manufacture of photosensitized films, cine positive (black and white), cine films sound negative, medical X-ray films, etc. The company was referred to BIFR in 1995. BIFR recommended its winding up on 30th Jan., 2003. Appeals were filed by various agencies before AAIFR against winding up order of BIFR.AAIFR dismissed these appeals. However, Madras High Court has granted an interim stay on the proceedings of AAIFR and BIFR orders on the basis of appeal filed by the Trade Unions. M/S Ernst and Young has been engaged for further study on the viability of the company on the basis of the recommendations of the Department Related Parliamentary Standing Committee on Industry (Rajya Sabha). Report of the consultants has been received and is under consideration. The production of the company during 2008-09 (prov.) has been Rs. 23.74 crore.

2.31 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 units located at Kharaghoda, Gujarat and Mandi, Himachal Pradesh. The company is sick and under reference to BIFR. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP) and a restructuring/revival plan has been approved by the Government in May, 2005. The revival package of the company is under implementation. Its production during the year 2008-09 (prov.) has been Rs. 26.67 crore.

Extraction & Haulage of Salt at Nawa Kyar in Sambhar Salt Area

2.32 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. The production of the company during the year 2008-09 (prov.) has been Rs. 17.66 crore.

2.33 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. The Central Govt. acquired 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 is under reference to BIFR. The company is being reviewed in the light of overall Public Sector Policy of the Government of India. BRPSE's recommendations for restructuring of the company are under consideration of the Govt. The production of the company during the year 2008-09 (prov.) has been Rs. 106.30 crore.

2.34 TYRE CORPORATION OF INDIA LTD.

Tyre Corporation of India Ltd. was incorporated in 1984 after the nationalization of two sick companies, namely, M/s Incheck Tyres Ltd. and M/s National Rubber Manufacturers Ltd. The company has its single operating unit at Kankinara (West Bengal) and is engaged in the manufacture of tyres for automobiles. The Company is sick and is under reference to BIFR. Tangra unit has since been closed after necessary permission from the competent authority. The company was reviewed in the light of Public Sector Policy under National Common Minimum Programme (NCMP). BRPSE's recommendations for restructuring of the company through disinvestment have been approved by the Govt. Parliament has passed the Tyre Corporation of India Ltd. (Disinvestment of Ownership) Bill 2007.The production during the year 2008-09 (prov.) has been Rs. 128.37 crore.

2.35 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

Ore processing plant, Jharkhand for UCIL commissioned by EPI

engineering, material handling, metallurgy, petrochemicals, environment and pollution control etc. After the financial restructuring of the company in 2001, the company has turned around and has been posting profits. After a gap of 26 years, the company started paying dividend from the financial year 2003-04. The company declared a dividend of 20 % for the year 2007-08. The turnover of the company during the year 2008-09 (prov.) has been Rs. 961.42 crore.

2.36 13 CPSEs namely, Mining and Allied Machinery Corporation (MAMC), Bharat Process and Mechanical Engineers (BPME), Weighbird (India) Ltd. (WIL), Cycle Corporation of India Ltd.(CCIL), Tannery and Footwear Corporation Ltd. (TAFCO), Bharat Leather Corporation Ltd. (BLC), National Industrial Development Corporation (NIDC), Rehabilitation Industries Corporation (RIC), Bharat Brakes and Valves (BBVL), Reyroll Burn Ltd. (RBL),Bharat Ophthalmic Glass Ltd. (BOGL), National Bicycle Corporation of India (NBCIL), and one holding company Bharat Yantra Nigam Limited (BYNL) have been closed.

Chapter 3

Heavy Electrical, Heavy Engineering and Machine Tool Industries

3.1 Heavy Electrical Industry is an important manufacturing sector, catering to the need of energy sector & other industrial sectors. Major equipments like boilers, turbo generators, turbines, transformers, condensers, switch gears and relays and related accessories are manufactured by Heavy Electrical Equipment manufacturers. The performance of this Industry is closely linked to the power programme of the country. The Govt. of India has an ambitious mission of 'Power for All by 2012' and planned power capacity addition of 78,577 MW in the 11th five year plan (2007-12). To reach wheel-power, an expansion of regional transmission network and inter-regional capacity to transmit power would be essential. This will stimulate substantial demand for Heavy Electrical equipments.

There is a strong manufacturing base for the manufacture of Heavy Electrical equipments in the country. Manufacturers of Heavy Electrical equipment have absorbed latest technology available in the world up to a unit capacity of 660/800 MW for thermal sets. After signing nuclear agreement with different countries, India is expected to become a major hub for manufacturing nuclear reactors and associated components. Latest technology for generation of nuclear power will be accessible to Indian manufacturers and bigger players in the field like BHEL and Larsen & Toubro will be benefited immensely. State owned Nuclear Power Corporation of India Ltd. is ambitiously planning to set up nuclear reactors to add substantial capacity in the near future. To sustain overall economic growth, the capacity to manufacture heavy electrical equipments need to be augmented to meet the increasing demand of this sector. To achieve the objective, the industry needs to reorient their efforts to access the technology for higher capacity thermal units and nuclear reactors. Simultaneously, they have to enhance investment in in-house R&D and overcome the constraints like non-availability of large size castings and forgings, CRGO Steel and amorphous steel in the country which are vital inputs for the sector.

3.1.1 Boilers

Boiler is a pressurised system in which water is vaporised to steam, the desired end product, by heat transferred from a source of higher temperature, usually the products of combustion from burning fuels. High pressure steam thus generated may be used directly as the working fluid in a prime mover to convert thermal energy to mechanical work, which in turn may be converted to electrical energy. BHEL is the largest manufacturer of boiler in the country accounting for around 2/3rd of the market share. It has the capacity to manufacture steam generators for utilities ranging from 30 to 500MW capacity using coal, lignite, oil, natural gas or a combination of these fuels. They are also manufacturing higher capacity boilers with super critical parameters upto 660/800 MW Unit size. Manufacturing

facilities are also available for higher size super critical boilers. Production, import and export figures for the last two years are as follows:-

Year	Production (non-SSI) (Rs. Crore)#	Exports (Rs. Crore)*	Imports Rs. Crore)*
2007-08	8,231	556	845
2008-09	10,154	572@	873@

Source-SIA * Source-DGCIS
@ Fig. are upto Dec'08

3.1.2 Turbines and Generator Sets

The capacity established for manufacture of various kinds of turbines such as steam and hydro turbines including industrial turbines is more than 10,000 MW per annum. Apart from BHEL which has the largest installed capacity, there are other units in the private sector who are manufacturing turbines for power generation and industrial use. The manufacturing range of BHEL includes Steam turbines, Boilers, Generators up to 500 MW for utility and combined cycle application and is capable of manufacturing Steam Turbines with super critical steam cycle parameters and matching generators up to 660/800 MW size. BHEL has the capacity to manufacture gas turbines up to 260 MW.

The AC Generator industry in India is adequately catering to the alternative power requirement of large and small industries, commercial establishments and domestic sector. For this sector, manufacturers in India are capable of manufacturing AC Generator right from 0.5 KVA to 25,000 KVA with specified voltage ratings.

The production, import and export figures for the last two years are as follows:-

S. Item	Production (Non-SSI) (Rs. Crore)#		Exportrs (Rs. Crore)*		Imports (Rs. Crore)	
	2007-08	2008-09	2007-08	2008-09	2007-08	2008-09
1. Turbine	3,518	4,193	622	833@	2,423	2,134@
2. Generator	1,474	1,778	2,168	2,928@	1,656	834@

Source-SIA *Source-DGCIS
@ Fig. are upto Dec'08

3.1.3 Transformers

A transformer is an electrical device, which changes Voltage levels and facilitates transmission, distribution and utilisation of electrical power in the most efficient and economic manner. The health of transformer Industry depends largely on the power generation and transmission system programme. The major users of this product are the State Electricity Board, Power Grid Corporation of India Ltd. and other Industries. Some special types of transformers are also manufactured which are used for the purpose of welding, traction and electrical furnaces etc. The transformer industry in India has developed for over 50 years and has a well matured technology base. Energy efficient amorphous core transformers with low losses and low noise levels are also being developed to meet International requirements. The production, import and export figures for the last 2 years are as follows:-

Year	Production (non-SSI) (Million KVA)#	Exports (Rs. Crore)*	Imports (Rs. Crore)*
2007- 08	73	3,212	3,499
2008-09	72	3,381@	3,760@

Source-SIA * Source-DGCIS
@ Fig. are upto Dec'08

3.1.4 Switchgear and Controlgear

Switchgear refers to the combination of electrical disconnects, fuses and/or circuit breakers used to isolate electrical equipment. Switchgear is used both to de-energise equipment to allow work to be done and to clear faults downstream. Switchgear & Control gear are indispensable not only in transmission and distribution of power, but anywhere where there is a need to access and control electricity. The Indian Switchgear Industry is manufacturing the entire range of circuit breaker from bulk oil, minimum oil, air blast, vacuum to sulphur hexafluoride as per

standard specification. Switchgear & Control gear Industry in India is a fully developed and mature industry, producing and supplying a wide variety of switchgear and control gear items needed by the industrial and power sector. This industry sector in fact manufactures the entire voltage range from 240 V to 800 KV.

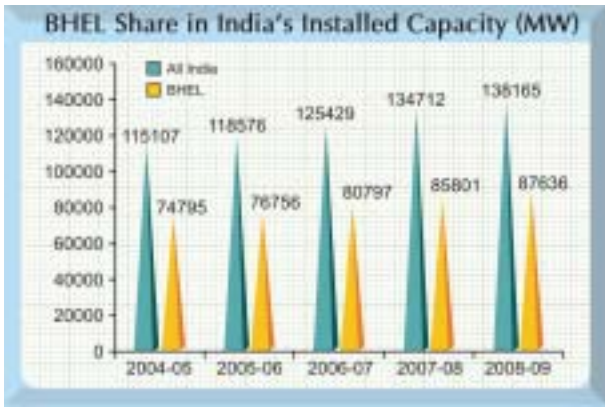
Secondary equipment such as relays used for various types of fault protection, also known as control gear, have made significant advances due to major development in the field of electronics. The digital relays are fast replacing the conventional relays due to technology advancement, compact size & its reliability. As per recent trends in addition to protection and control of power, monitoring and signalling are becoming integral part of switchgears. With monitoring, the fault conditions can be predicted whereas signalling helps to know the status of switch gears at various locations.

The production, import and export figures for the last 2 years are as follows:-

Year	Production (non-SSI) (Lakh nos.)#	Exports (Rs. Crore)*	Imports (Rs. Crore)*
2007- 08	189	1,613	2,629
2008-09	178	1,373@	2,678@

#Source-SIA *Source-DGCIS

@ - Fig. are upto Dec'08



3.2. Heavy Engineering Industry

3.2.1 TEXTILE MACHINERY INDUSTRY

There are over 700 units engaged in the manufacture of Textile Machinery, their components, accessories and spares and, out of these, about 250 units are manufacturing the complete machinery. The range includes textile machinery required for sorting, cording, processing of yarns/ fabrics and weaving.

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

Textile Machine

With a capital investment of Rs. 1500 crore and an installed capacity of Rs. 3800 crore per annum, their current production, imports as well as exports are as under:

(Rs. Crores)

Year	Production	Exports	Imports
2005-2006	2212	476	6768
2006-2007	2799	500	9434
2007-2008	2997	562	7276

Source: Textile Machinery Manufacturers Association

3.2.2 CEMENT MACHINERY INDUSTRY

Cement plants based on dry processing and pre-calcination technology for capacities upto 7500 TPD are being manufactured in the country. Modern cement plants are designed for zero downtime, high product quality and better output with minimum energy consumption per unit of cement production

etc. At present, there are 18 units in the organized sector for the manufacture of complete cement plant machinery. With an installed capacity of around Rs. 600 crore/ annum the industry is fully capable to meet the domestic demand. As per records the industry has made no imports or exports during the last three years.

3.2.3 SUGAR MACHINERY INDUSTRY

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

(Rs. Lacs)

	2005-06	2006-07	2007-08
Import	905	2511	2050
Export	3767	1252	2211

Source: DGCIS

3.2.4 RUBBER MACHINERY INDUSTRY

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

(Rs. Crores)

	2005-06	2006-07	2007-08
Import	12.02	34.79	25.38
Export	50.32	98.16	82.09

Source: DGCIS

3.2.5 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, Cement, Power, Port, Mining, Fertilizers and steel plants.

There are 50 units in the organised sector for the manufacture of material handling equipment. Besides, there are a numbers of units operating in the small-scale sector. The industry is self sufficient in meeting domestic demand and is also capable of meeting global competition. However, level of imports is much higher than the exports, as given in the table below:-

(Rs. Crores)

	2005-06	2006-07	2007-08
Import	545.54	1552.97	1152.86
Export	77.91	124.27	197.57

Source: DGCIS

3.2.6 OIL FIELD EQUIPMENT

The petroleum industry in India is undergoing a major change. With the ongoing process of liberalisation, the industry has been thrown open for private sector in all major areas of exploration, production, refining and marketing, and this has resulted in increased demand for the oil field and related equipments.

Domestic production covers mainly the on-shore drilling equipment. Under Offshore drilling, only offshore platforms and some other technological structures are being produced locally. The major producers of these equipments are BHEL, Hindustan Shipyard, Mazagon Dock and Larsen & Toubro. Level of

imports/exports during the last three years is as under:-

(Rs. Crores)

	2005-06	2006-07	2007-08
Import	352.84	411.73	4141.76
Export	71.87	72.51	185.11

Source: DGCIS

3.2.7 METALLURGICAL MACHINERY

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

At present, there are 39 units in the organized sector engaged in the manufactures of various types of metallurgical machinery. The existing production capacity in the country is sufficient to meet the demand of these equipments in the country.

Indigenous manufacturers are in a position to supply majority of the equipment for steel plants e.g. blast furnaces, sinter plants, coke ovens steel melting shop equipment, continuous casting equipment, rolling mills & finishing line. However, there is a technological gap in the basic design and engineering for plants and equipments required 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. Level of imports/ exports during the last three years is as under:-

(Rs. Crores)

	2005-06	2006-07	2007-08
Import	1200.65	1843.27	1976.13
Export	535.04	643.68	592.47

Source: DGCIS

3.2.8 MINING MACHINERY

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

At present, there are 32 manufacturers in the organized sector, both in public and private sector, for underground and surface mining equipment of various types. Out of these, 17 units manufacture underground mining equipment. Majority of the requirement of the mining industry is being met by the indigenous manufacturers. Level of imports/exports during the last three years is as under:-

(Rs. Crores)

	2005-06	2006-07	2007-08
Import	41.99	76.71	110.61
Export	5.90	48.47	6.59

Source: DGCIS

3.2.9 DAIRY MACHINERY INDUSTRY

At present, there are around 20 units in the organized sector, both in private and public sector, manufacturing Dairy Machinery equipments such as evaporators, milk refrigerators and storage tanks, milk and cream deodorizers, centrifuges, clarifiers, agitators, homogenisers, spray dryers and heat exchangers. Small Scale units are also contributing to indigenous production. The spray dryers, plate type heat exchanger and other core equipments for milk powder plant call for high degrees of polish requirement on the equipments because the presence of any micro crevices resulting from inadequate polish tends to be the incubation and breeding ground for the bacteria.

Technology gap exists for handling equipments such as self cleaning cream, separator, aseptic processing systems, and for the equipment required for manufacture of yoghurt and

traditional Indian sweets etc. Level of imports/ exports during the last three years is as under:-

(Rs. Crores)

	2005-06	2006-07	2007-08
Import	52.36	68.97	76.19
Export	5.95	10.27	24.25

Source: DGCIS

3.3 MACHINE TOOL INDUSTRY

Machine Tool Industry is in a position to export general purpose and a standard machine tool to even industrially advanced countries. During the last four decades, the machine tool industry in India has established a sound base and there are around 200 machine tool manufacturers in the organized sector as also around 400 units in the small scale sector. The Indian industry has good design capability and the production of CNC machines has increased to about 4000 no. per annum. The industry, however, lacks in design and engineering capability to undertake very high precision CNC Machines. Import of technology is encouraged to bridge the gap.

Indian machine tools are manufactured to the international standard of quality / precision and reliability. A number of collaborations have also been approved for bringing in the latest technology in this field of modern machine tools and the industry is now exporting conventional as well as NC/CNC high – tech machine tools. In the field of R & D, Central Manufacturing Technology Institute, Bangalore has been doing research for more appropriate designed machine tools. However, imports are increasing during the last three years due to second hand machine tools coming in the country as per the following details:-

(Rs. Crores)

	2005-06	2006-07	2007-08
Production	1342.00	1719.00	1902.00
Import	2899.00	4656.00	5992.00
Export	50.00	73.00	147.00

Chapter 4

Automotive Industry

4.1 Overview of the Automotive Industry

4 .1.1 Automotive Industry globally is one of the largest industries and is a key driver of economy. Owing to its deep forward and backward linkages with several key segments of industry, automotive industry has a strong multiplier effect on the economy. A sound transportation system plays a pivotal role in the country's rapid economic and industrial development. The well-developed Indian automotive industry of India ably fulfils this catalytic role by producing a wide variety of vehicles such as passenger cars, light, medium and heavy commercial vehicles, multi-utility vehicles, scooters, motor-cycles, mopeds, three wheelers, etc.

4.1.2 Automobile Industry was de-licensed in July 1991 with the announcement of the New Industrial Policy. The passenger car was however de-licensed in 1993. No industrial license is required for setting up any unit for manufacture of automobiles except in some special cases. The norms for foreign investment and import of technology have also been progressively liberalized over the years for vehicles manufacture including passenger cars in order to make this sector globally competitive. At present ,100% Foreign Direct Investment (FDI) is permissible under automatic route in this sector including passenger car segment. The import of technology/technological upgradation on the royalty payment of 5% without any duration limit and lump sum payment of USD 2 million is also allowed under automatic route in this sector.

With the gradual liberalization of the automobile sector since 1991, the number of manufacturing facilities in India has grown progressively. At present, there are 16 manufacturers of passenger cars & multi utility vehicles, 13 manufacturers of commercial vehicles, 16 of 2/3 wheelers and 12 of tractors besides 5 manufacturers of engines.

4.1.3 The automotive industry comprising of the automobile and the auto component sectors, has made rapid strides since the de-licensing and opening up of the sector to FDI in 1991. The automotive industry has already attained a turnover of Rs. 2, 02,000 crore. The industry provides direct and indirect employment to over 1.31 crore people. The industry is also making a contribution of 17% to the kitty of indirect taxes of the Government.

4.1.4 Today India is the world's second largest manufacturer of two wheelers and fifth largest manufacturer of commercial vehicles. It manufactures largest number of tractors in the world and is the fourth largest passenger car market in Asia. World's largest manufacturer of two wheelers is located in India. A supplier driven market having not more than a handful of vehicular models two decades ago, it now offers more than 150 models and variants by way of customer options. The industry has

been able to restructure itself, absorb newer technology, align itself to the global development to achieve overall industrial growth in the country.

4.1.5 However, since 2006-07 the industry is witnessing decline in sales, both in domestic market and exports. Factors like reduced availability of finance, high interest rates, depreciating dollar, rising commodity prices, etc. are all responsible for this showdown but availability of finance is the most important factor.

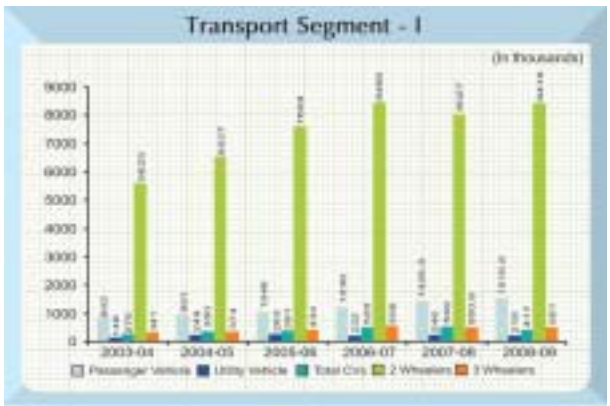
4.2 Production

4.2.1 While the automotive industry, one of the largest industries in India, has been witnessing an impressive growth during the last two decades, the performance since 2006-07 is not encouraging. The automobile sector recorded growth of 13.56% in 2006-07. During the year 2007-08, the industry registered (-) growth of 2.29% over the previous year. However, during the year 2008-09 the industry has registered a moderate growth of 2.96%. The details of actual production during the last six financial years are given below:

(In thousands)

Segment	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Passenger Vehicle	842	951	1046	1238	1426.5	1516.8
Utility Vehicles	146	249	263	222	246	218
Total CVs	275	350	391	520	549	417
Two Wheelers	5625	6527	7609	8466	8027	8419
Three Wheelers	341	374	434	556	500.6	501
Grand Total *	**7229**	**8461**	**9734**	**11088**	**10853.9**	**11175.5**

* This includes the production in MPV sectors also.



4.2.2 Export

Exports are very important for the automobile industry as it enables industry to produce in larger volumes and attain cost competitiveness. The automotive industry of India is now finding increasing recognition worldwide and a beginning has been made in export of vehicles as well as components. The details of exports during the last six financial years are given below:

(in thousands)

Segment	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Passenger Vehicle	126	161	170	194	218	336
Commercial Vehicles	3	6	5	4	6	5
Total CVs	17	30	41	50	53	37
Three Wheelers	265	367	513	619	141	148
Two Wheelers	68	67	77	144	819	1004
Total	**479**	**631**	**806**	**1011**	**1238**	**1530**
Percentage growth	55.98	31.73	27.73	25.43	22.45	23.61

Source: SIAM

4.2.3 Vehicular Pollution Control Measures of the Government

Government has initiated pollution & safety checks by notifying emission & safety standards from the year 1992 which were further modified in April, 1996 under the Motor Vehicle Act. BHARAT STAGE-I (Equivalent to Euro I) emission norms have already been made applicable throughout the country. Euro II equivalent Bharat Stage II norms are in force from 2001 in 4 metros of Delhi, Mumbai, Chennai and Kolkata. These norms have been extended to entire country w.e.f. 1.4.2005. India is harmonizing its Emission Norms for

four Wheelers with the European Regulation and has adopted Euro III, equivalent norms in 11 Metropolitan Cities from April 2005. The next higher level of emissions standards will come into force w.e.f. April, 2010.

4.3 Auto Components Industry

4.3.1 Overview

The fortunes of the auto-components industry is closely linked to that of the vehicle industry. In view of the slowdown in the vehicle industry over the last two years, the growth in the component industry has also been moderate as compared to previous years. Component industry has registered a moderate turnover growth of 6% in 2008-09 over last year. Industry has achieved a sales turnover of Rs. 76,230 crores. It has grown at CAGR of 24% for last 5 years. Auto components industry has got over 500 companies in the organized sector and about 10,000 firms in the unorganized sector. In terms of International Trade, the auto-components industry continued to exhibit very high growth rates in both imports as well as exports. The overall export of the industry grew by a CAGR of 25% during the 5 years period 2004-05 to 2008-09 and has now reached the Rs. 15,000 crore mark. However, at the same time, import of auto-components grew by a much higher CAGR of 34% to touch a level of Rs. 27,500 crore in 2008-09. During the year 2008-09, import of auto-components grew at 31% which is more than five times that of the export growth rate in 2008-09. Imports, thus, are growing at a much faster pace as compared to exports and presently, India has become a net importer of auto components.

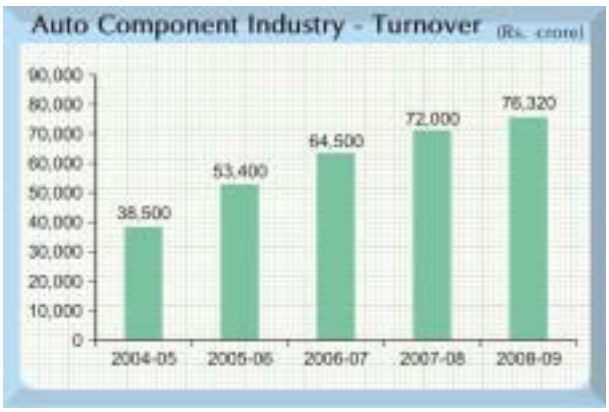
4.3.2 Industry continues to maintain strong confidence in the long term growth of the sector as envisioned in the Automotive Mission Plan (AMP) 2006-16. Consequently, the industry is continuing its investments in capacity creation and is spending approximately US$ 1.5 billion annually for it. This additional capacity is being set up by way of incremental expansion in the existing companies as well as by setting up of green-field units, especially in the Northern States, where the vehicle industry is also making substantial investments.

4.3.3 Quality has always been an advantage for Indian Auto Component Industry and companies are not making any compromise on this front. Though, more than 95% companies are ISO 9000 certified, more and more companies are also registering themselves as ISO/TS and ISO 18000 certified.

The performance of the Auto Component Sector in terms of turnover, export and investment during the past 5 years is as follows:

(Value in Rs. Crore)

Indicators	2004-05	2005-06	2006-07	2007-08	2008-09
Turnover	38,500	53,400	64,500	72,000	76,320
	25.6%	38.7%	21%	12%	6%
Exports	7,937	11,198	13,184	14,132	15,000
	37%	41%	18%	7%	6%
Imports	9,504	12,115	15,974	20,998	27,500
	45%	27%	32%	30%	31%
Investment	15,8000	19,5000	24,000	28,8000	32,000
	16%%	18%	23%	20%	11%



4.4. Agricultural machinery

Agricultural Machinery mainly consists of Agricultural Tractors, Power Tillers, Combine Harvesters and other agriculture machineries

& implements. Due to negligible production of Power Tillers, Combine Harvesters and other agricultural machineries, this sector is mainly dominated by agricultural tractors.

4.4.1 Export

Tractor exports from India have grown by around 29 percent in 2007-08, in which the US accounts for a major share. Exports to other countries, such as South Asian countries, Malaysia and Turkey, is growing rapidly as well. Indian players have aggressively started exporting to African countries by bidding for government tender requirements. As such Indian tractors are gaining acceptance in international markets.

4.4.2 Segment-wise analysis

1. The Indian tractor market is traditionally a medium-horsepower market consisting mostly of 31-40 hp, which constitutes almost 46 percent of the total market in 2007-08.
2. In other-size categories, 41-50 hp category constitutes 27 percent of the total market. The 21-30 hp category had a market share of 15 percent while the above 51 hp category was around 12 percent.
3. Many factors influence tractor demand. Primary demand emanates from agricultural growth and the secondary demand from dual use of tractors

4.5 Earth Moving and Construction Machinery

4.5.1 Earthmoving and Construction equipment (ECE) industry constitutes a major background linkage of construction along with the building material manufacturing industry. Construction materials account for nearly two-third of average of the construction costs. Construction equipment cover a variety of machinery such as hydraulic excavators, wheel loaders, backhoe loaders, bull dozers, dump trucks tippers, graders, pavers, asphalt drum/wet mix plants, breakers, vibratory compactors, cranes, fork lifts dozers, off-highway dumpers (20T to 170T), drills scrapers, motor graders, rope shovels etc. They perform a variety of functions like preparation of ground, excavation, haulage of material dumping/laying in specified manner, material handling, road construction etc. The Indian earthmoving and construction equipment industry has been undergoing a silent revolution over the past few years, expanding volumes at the compounded annual rate of 40 per cent, reaching to a US$ 2.3 billion magnitude in 2006-07 (from about US$ 1 billion in 2003-04). The Indian market has almost tripled in the last three years, from approximately 14,000 units to 38,000 units). It grew by about 30% during 2007-08 to reach about US$ 3 billion.

4.5.2 The organized construction sector (e.g roads urban infrastructure) in India accounts for approximately 55 percent of the industry; mining, irrigation and other infrastructure segments (e.g. power, railways) account for the rest. Each of these end-use demand segments is likely to witness a huge wave of additional investments, which augurs well for the sustained and strong growth of the ECE/ industry in India.

4.5.3 Key infrastructure projects- such as roads & highways, bridges & urban construction, power projects, railways, airport modernization, real estate development, mining sector have, in the recent years, attracted huge investment. These, in turn, provide major business opportunities to the equipment manufacturers.

4.5.4 With these driving factors, India's ECE industry has the potential to expand many-fold, from revenues of US$ 3 billion today to US$ 13 billion by 2015. This implies an overall linear CAGR of 24 per cent per annum.

4.6 Important initiatives by the Department of Heavy Industry (DHI)

DHI being the nodal Department for automobile and auto component industry takes

up issues relating to the automobile sector, at various platforms for its growth. In this regard, DHI has taken various important initiatives as mentioned below:

4.6.1 Development Council for Automotive and Allied Industries (DCAAI)

This forum provides an opportunity to identify key area of concern for which appropriate policy modulations and other identified areas of action can be taken by various Ministries/ Department of the Government of India. The first meeting of the newly reconstituted DCAAI was held under the chairmanship of Secretary, Heavy Industry on 1.12.2008. The impact of global economic slowdown on the Indian automotive and auto-component industries and the measures to overcome the situation and the other important issues were deliberated upon.

4.6.2 Formation of Inter Ministerial Groups (IMGs)

In order to monitor the implementation of road map for achieving the targets set in the AMP 2006-16, five IMGs on various aspects of the automobile industries like; Taxation & Export, Investment & Policy, Safety & Environment, Technology and R&D, Infrastructural & Institutional Support have been constituted.

4. 6.3 Meeting of the Indo-German Joint Working Group (JWG) on Automotive Sector

Indo-German Joint Working Group (JWG) on automotive sector has been established under the aegis of Indo-German Joint Commission on Industrial and Economic Cooperation (JCM). This is the fifth JWG; the other four groups are in the areas of Agriculture, Coal, Infrastructure and Tourism. The first meeting of the JWG was held on 6.2.2009 in New Delhi. The Joint declaration of intent for the terms of reference of JWG on automotive sector was signed on 6th February, 2009 between India and Germany in the presence of Hon'ble Minister (HI&PE) and Hon'ble Minister, Transport, Building & Urban Affairs, Federal Republic of Germany. The Indo-German JWG initiative would lead to greater exchange of information and cooperation in the fields of research & development, sustainable alternative fuels & drives and automotive efficient engine technologies. This will help in meeting the challenges posed by the need for reduction of energy consumption in the transport sector and for environment protection. The JWG will also facilitate institutional cooperation for the development of the auto industries in both the countries.

4.6.4 EFV Conference 2009

As a part of WP-29 initiative, a series of International Conferences on Environmentally Friendly Vehicles (EFV) are organized. The 146th Session of WP-29 (UN) was held in November, 2008 in Geneva. During this session, India's intention to host the 4th EFV Conference was unanimously endorsed by all members of WP-29. As per this, the 4th EFV conference will be held in New Delhi from 23rd to 24th November, 2009. For the first time such a prestigious international event is being held in a developing economy. The last meeting of EFV was held at Dresden, Germany in 2007. A joint declaration of intent has also been signed between Government of India and the Federal Republic of Germany in December, 2008 for their cooperation & help for hosting the fourth environmentally friendly vehicles conference in New Delhi in 2009.

Chapter 5

Technology Upgradation and R&D

5.1 India has established a strong and diversified manufacturing base for production of a wide variety of basic and capital goods to meet the requirements of various sectors including heavy electrical, power generation and transmission industries, process equipment, automobiles, ships, aircrafts, mining, chemicals, petroleum, etc. However, share of manufacturing sector in India's economy is still quite low. There is considerable potential for growth, which in a globalised world economy, has to be based on improving productivity and competitiveness. Innovation and adoption of new technologies are the key factors in competitiveness. In the Indian context, opening of the economy and consequently the entry of international players has substantially enhanced the need for production of goods and services matching international standards. Indian Industry has undertaken a number of steps to meet the needs of the customers in a fast changing environment. PSEs under the Department are also pursuing their plans to adopt and introduce new technologies through collaborations and in-house R&D efforts. Some of the initiatives in this regard are described below:

5.1.1 Testing and R&D infrastructure for Automotive Sector

The National Automotive Testing R & D Infrastructure Project (NATRiP) was approved by the Government on 25th July 2005 and notified by the Department of Heavy Industry on 31st August 2005. NATRiP envisages setting up of world-class automotive testing and homologation facilities in India with a total investment of Rs.1,718 crore in two phases of three years each, from the date of its being notified. The principal facilities will come up in the three automotive hubs of the country, in the south, the north and the west. The project aims at (i) creating critically needed automotive testing infrastructure to enable the Government in ushering in global vehicular safety, emission and performance standards, (ii) deepening manufacturing in India, promoting larger value addition leading to significant enhancement of employment potential and facilitating convergence of India's strengths in IT and electronics with automotive engineering, (iii) enhancing India's considerably low global outreach in this sector by de-bottlenecking exports and (iv) removing the crippling absence of basic product testing, validation and development infrastructure for automotive industry in the country.

View of Hill Road Track at Silchar-NATRiP

The project envisages setting up of the following facilities:-

(i) A full-fledged testing and homologation centre within the northern hub of automotive industry at Manesar in the State of Haryana.

(ii) A full-fledged testing and homologation center within the southern hub of automotive industry at a location near Chennai in the State of Tamil Nadu.

(iii) Up-gradation of existing testing and homologation facilities at Automotive Research Association of India (ARAI), Pune and at Vehicle Research and Development Establishment (VRDE), Ahmednagar in Maharashtra.

(iv) World-class proving grounds or testing tracks on around 4,000 acres of land, including summer and winter pads, the locations of which would be decided with technical assistance from a reputed global consultant to be appointed on the basis of global tendering process.

(v) National Center for Testing of Tractors and Off-Road Vehicles together with national facility for accident data analysis and specialized driving training in northern part of the country at Rae Bareilly in the State of Uttar Pradesh.

(vi) National Specialized Hill Area Driving Training Center as also Regional In-Use vehicle management center at Dholchora (Silchar) in the State of Assam.

Approved Funding Pattern

The investment of Rs. 1718 crore is proposed to be funded jointly by the Government and the Industry, based on recommendations of the Expenditure Finance Committee and the approval of the Government, in the following manner.

A. Plan Support by the Government

By way of grant	:	Rs. 817 crore
By way of Cess Funds	:	Rs. 510 crore
By way of loan	:	Rs. 273 crore

B. User Charges to be paid by auto industry : Rs. 118 crore

Total Project Cost (A+B) : Rs. 1718 crore

Some of the main activities completed so far are given below:

- **Governing Council Constituted**- Eight members Governing Council was named in the Memorandum of the Society with three members from Government of India, one member from testing agencies, three members from industry and CEO & Project Director (NATRiP), as Member Secretary. The first meeting of the Governing Council was held on 24th August 2005 wherein it was decided to include representatives of the Department of Road Transport & Highways (DoRT&H) and Ministry of Environment & Forests (MoEF). Since then, the GC has held 28 meetings for guiding the project implementation.
- **The Corporate and Site Offices**- The Corporate office of NATRiP became functional from 5th Floor, Core 3 of Scope Complex at Lodhi Road from 30 Sep '05 onwards. Small site offices have also become operational at all the project sites.
- **Global Consultancy** - The consortium led by IDIADA of Spain was selected as Global Consultants for NATRiP on 5th Nov '05 and the Project Consultancy Agreement was signed between NATRiP and IDIADA led consortium on 27th January 2006.
- **Topography Survey of Project Sites** - Based on detailed technical specifications for the survey as finalized with the assistance of Global Consultants, the topography survey of all project sites except VRDE has been completed. The data from the topography survey was provided to the Global Consultants as input for DPIR preparation.
- **Detailed Project Implementation Report (DPIR)**- was finalized and approved by the Governing Council of NATIS on 25th July 2006. The DPIR spells out the technical architecture of the project focusing on analysis on test sites, outcome of market survey and preliminary facility sizing and the implementation schedule for various activities.

- **Preparation of Internal Processes & Procedures**– Based on the directions of the Empowered Committee and the Governing Council, in order to streamline the functioning and optimize the efficiency of the project execution, consultants were hired for developing a robust system of budget and accounts, office procedures and procurement. These procedural manuals have now been finalized and approved by the Governing Council of NATIS.
- **Annual Accounts of NATIS for the year 2007-08** – After statutory audit of accounts by a Chartered Accountants firm as per clause 89 of Memorandum and Rules of NATIS is complete ,the Annual Accounts were approved by the Governing Council of NATIS in its 23rd meeting and adopted in the 3rd Annual General Meeting held on 31st July,2008.
- **Signing of MoU with Vehicle Certification Authority (VCA) of U.K Government** – NATRiP has taken a bold initiative by arranging an MoU between VCA and NATRiP for providing internationally valid certification for automotive exports for homologation services to be provided by the upcoming NATRiP centres. The MoU was signed on 27th Oct 2006 and this would give a boost to the auto exports as well as save costs to the industry for getting internationally valid certification from agencies outside India. To implement the MOU a series of conclaves with the auto industry are being held.

5.1.2 Comprehensive Scheme for Technology up-gradation/R&D facilities for modernization of Capital Goods sector

Capital goods, being a strategic sector, have occupied a central place in the planning process of India since 1951. Over the years, the country has been able to develop a strong engineering and capital goods base capable of manufacturing the entire range of machinery to serve a wide cross-section of industry segments ranging from defence, oil & gas, refinery, nuclear, chemicals and petrochemicals, fertilizers, automobiles etc.

The Indian Capital Goods Industry has been witnessing a turn around after a prolonged period of recession. Capital goods manufacturers have been experiencing excellent growth both in the top and bottom line. Their order books are in a very healthy state.

The capital goods industry now needs to strategise its future in order to ensure steady growth and enhance the competitiveness of the industry in the context of increasing globalization. In this regard, Department of Heavy Industry had mandated a study done by CII and a number of its recommendations are proposed to be pursued through a modernisation scheme. The scheme is intended to take some key policy initiatives for development of this sector. Initially, this effort would cover five major CG sectors, viz.- Heavy Electrical Equipment, Process Plant Machinery, Mining & Construction Equipment, Textile Machinery and Machine Tools Industry which together account for 65% of the total production in the capital goods sector.

5.2.1 Automotive Research Association of India (ARAI), Pune

ARAI is a co-operative research organization that was established in 1966 by the Indian Vehicle and Automotive ancillary manufacturers and the Government of India. ARAI is affiliated to the Ministry of Heavy Industry and Public Enterprises and recognized by the Department of Scientific and Industrial Research. It is an ISO 9001-2000, ISO 14001-2004 and OHSAS 18001-1999 organization, and is also accredited by National Accreditation Board for Laboratories (NABL) for its major certification facilities. The Governing Council consists of members from Indian Automotive Industry and representatives from Government of India.

ARAI offers comprehensive R&D services in the fields of engine development of alternate

fuels, NVH-Noise, Vibration & Harshness, computer aided engineering, structural dynamics, automotive electronics and materials. The state-of-the-art Research & Development and testing facilities at ARAI are increasingly utilized for sponsored and in-house Research & Development projects as well as homologation activities.

ARAI offers expert services in testing, certification and homologation of complete vehicle, engines, systems and components. In line with ARAI's vision to increase contribution from R&D work and to strengthen competence, technology gaps were identified. Based on their relevance and current need, following eight R&D projects are under implementation.

i. Design & Development of High Performance 3 Cylinder CRDI Euro 4 Diesel Engine

ii. Development of Diesel Engine using HCCI Combustion Concept to meet EURO IV & EURO V Norms

iii. Development of 6 Cylinder HCNG (H2+CNG) Engine Compliant to Euro-V Norms

iv. Development of Electronic Fuel Injection System for 4-stroke, Single Cylinder Gasoline Engine

v. Measurement of Nanoparticle Emissions of Automobiles

vi. Performance evaluation of Bio-diesel for emissions and durability

vii. Study of engine-out emissions under steady-state and transient conditions

viii. Anthropometrical Data Measurement for Indian Driving Population

Two R&D projects, namely "Design and Development of Diesel Engine to meet EURO-3 and EURO-4 Emission Norms" and "Measurement of Road Profile on Indian Roads and Study its Effect on Vehicle Durability and Ride" have been successfully completed.

Following four R&D projects have been approved by DHI:

a. Development of Integrated Safety System

b. Generate data bank on Chemical, Mechanical, Physical & Dynamic properties of automotive grade High Strength Steels (HSS) & Aluminum Alloys

c. Development of Dual fuel Diesel CNG engine to meet BS-IV norms

d. Study and development of vehicle suspension for Indian road conditions for better ride comfort and less fatigue to driver using Hardware in Loop Simulation technology

5.2.2 Forging Industry Research Institute (ARAI-Forging Industry Division)

With a view to overcome the impediments faced by the Forging Industry and to innovate, to develop newer cost efficient technologies, ARAI - Forging Industry Division (ARAI-FID) was created by way of Memorandum of Understanding (MoU) signed on 22nd December 2004 between MHI & PE, AIFI and The Automotive Research Association of Indian (ARAI).

The total approved cost of this project i.e. the Grant-in-aid is Rs. 22 crores and the same was released in installments, with the last installment being released in March 2009. The building construction activity including the basic infrastructure like electricity and water supply, landscaping, DG Set, UPS etc. has been completed.

The testing, R&D and training facilities established at ARAI – FID are for providing a system of continuing R&D at all levels. In the Fatigue Laboratory facilities such as Power pack & Actuators, Electro Dynamic Shaker, Dynamic Testing Machine have been installed. The necessary infrastructure for carrying out testing & for providing services in evaluation and analysis of component life, namely Cast Iron Bed Plate, EOT Crane, Cooling Tower, Testing

Fixtures, Load Frames, Workshop etc. have also been installed. The laboratory has commenced testing and evaluation of auto components like connecting rod, knuckle joints, axles & beams, seats etc.

The Metallurgy Laboratory has been established and provides services in chemical, mechanical, metallographic and non-destructive testing. The necessary equipments have been procured and services to Industry commenced in December 2008. The major facilities other than basic equipments in the Metallurgy Laboratory include Optical Emission Spectrometer, Image Analyzer, High Temperature Microscopy, Micro Hardness Tester and Ultrasonic Flaw Detector. Residual Stress Analyzer, an instrument to measure residual stress in components and retained Austenite in steel has been ordered.

The R&D Center consists of state-of-the-art software Forge 2008 along with 16 CPU Cluster for bulk Metal Forming Simulation – which is unique in the country and useful for large & small scale sector units. This software helps in meeting the Industry's needs like selection and optimization of forging processes, improving die life, predicting metal flow, analyzing accurate geometry of final part and predicting defects. In addition CAE software packages like Pro-engineer, Unigraphics, Hyper Works – 50HWU and Auto Desk Inventor for design of components are now available in the R&D Center.

Training Centre with well furnished and modern classrooms, computer lab, conference hall and meeting rooms has been set-up at ARAI - FID. The institute has already started training industry personnel in technical, managerial, supervisory and operational skills. The Training Centre also has a WebEx System through which interactive training programs will be organized with experts in various fields and disciplines available world-wide.

This project is to be shortly rechristened as Forging Industry Research Institute of India (FIRI) after the new Society under this name is registered.

5.3 R&D INITIATIVES BY THE CPSEs

Some of the other major programmes of technology upgradation and R&D efforts of the Central Public Sector Enterprises under the Department of Heavy Industry are detailed below:

5.3.1 Bharat Heavy Electricals Ltd. (BHEL)

Some significant developments carried out during the year are as follows:

- Reinforcing its commitment to conservation of natural resources, BHEL has developed a new variant of 500 MW Steam Turbine. This design improves efficiency and saves coal consumption by around 8200 Tonnes annually. This design is being commercialized in 11 sets of 500 MW being supplied and commissioned countrywide.
- Consistently offering tailor-made designs to suit customer needs, BHEL has developed a new Steam Turbine model for rating range of 30-45 MW for application in the Paper industry. The Turbine provides a large quantity of controlled extraction steam for the paper mill.
- For the benefit of its customers by way of developing more efficient products/technologies, BHEL is establishing a Centre of Excellence for Intelligent Machines and Robotics (COE-IMAR) – the fifth in the series. The centre will focus on implementation of computer integrated manufacturing, advanced radio frequency identification technology for material

BHEL's Centre of Excellence for Intelligent Machines

identification and tracking and paperless manufacturing. Pilot projects are underway for integration of computer aided design, manufacturing, numerical controls and inspection. Consignment and vehicle tracking using global positioning system (GPS) and GSM technologies have also been taken up.

- In line with its developmental work in futuristic areas, BHEL realized the immense potential of Nanotechnology and initiated several programmes to accelerate development in this area. For the first time in the country, BHEL has commissioned a Gas – fired Spray Pyrolysis System for pilot–scale synthesis of tailor-made nano materials with a production capacity of 0.5-1 kg/ hour. The system is specifically designed for different metal oxide nano materials. Areas of application include nano structured coatings, additives for improving wear resistance in metals, development of nano composites, nano porous membrane coatings. etc.
- As its contribution to the armed forces, BHEL has designed, manufactured and supplied 15 nos. Cooling Systems for Travelling Wave Tube, an electronic device for use in one of BEL's strategic projects for the Indian Army. The mobile cooling systems are compact, self sufficient and operate under stringent conditions over a wide range of ambient temperatures and orientations for operation in adverse environmental conditions.
- As part of its customer-centric product upgradation process, BHEL has designed and manufactured, India's largest rating (7161 kw) Pressurised Squirrel Cage Induction Motor for HPCL Vizag. The motor offers enhanced safety features and is designed for driving Blower with very high Inertia and meeting stringent starting current limitation of 450%.
- Continually striving to improve the economies of solar PV systems, BHEL has developed its largest size 220-Watt PV Module. This will meet customer demand for larger wattage modules, especially for grid- connected applications, as it will reduce the number of modules required per system thereby improving reliability.
- BHEL has developed a new non –electrical UHF-PD (Ultra High Frequency- Partial Discharge) measurement technique for assessing the condition of Transformer Insulation. The method is important for High Voltage (800-1200 KV) transmission systems.
- Reinforcing its position as a total solution provider, BHEL has developed and successfully commissioned a Maintenance Controller (an Integrated Asset Management and Decision Support System) at the Western Mountain Power Project, Libya. Based on Power Pac-G, a software jointly developed by BHEL and TCS, this is a system for complete power plant maintenance for Combined Cycle Power Plant application and takes care of all the maintenance needs of a power station.
- As part of BHEL's efforts to provide modern and more efficient transportation solutions, BHEL has successfully developed, manufactured and tested for the first time, a Traction Motor for 350 HP Diesel Electric Multiple Unit (DEMU), against an export order of 20 numbers, to be supplied to Angolan Railways.
- Aimed at enhancing value for customers in the oil sector, BHEL has designed for the first time a higher rating 1430 kVA Brushless Alternator for oil rig application against on order from ONGC. The alternator will offer self start facility in rigs located in remote areas which was not possible in the existing 1215 KVA alternators.
- To augment its range of disc insulators for meeting customer requirements, BHEL has developed HVDC Disc. Insulators of 320kN/420kN rating for the first time in the country. For application in ± 800 KV HVDC transmission systems, BHEL will be the first manufacturer to develop and test these insulators in the world.

5.3.2 Hindustan Paper Corporation Ltd. (HPC)

- R&D and Technology Upgradation activities undertaken at HPC include:
- Laboratory scale study on desilication of black liquor.

CMP Washing Plant of HPC

- Laboratory scale study on cooking of Bamboo of different species at different active alkali charge to understand its effect on kappa no., yield and chemical demand.
- Soda recovery boiler cleaning with chemicals as a trial.

5.3.3 Hindustan Newsprint Ltd. (HNL)

Technology Upgradation and R&D activities are undertaken in the following areas;

- Increase of pulp brightness on maintaining higher consistency in peroxide bleaching of chemi-mechanical pulp.
- Impact of species, age and seasoning on chemi- mechanical pulping yield and peroxide consumption.
- ECF (Elemental chlorine free) bleaching of Reeds & Bamboo chemical pulp.
- Setting up of a state – of – art Tissue Culture laboratory for developing high yielding, quick growing and disease resistant propagules.
- Effect of DTPA in bleaching of Chemi Mechanical Pulp.
- Improving the effluent sludge filterability at RST filter using polymers.
- Colour removal of effluents with ferrous chlorides.

5.3.4 Scooters India Ltd. (SIL)

- Product Development
- Development of 3- Wheeler with Greaves GL – 400 AG gasoline engine in CNG/LPG mode for Auto rickshaw (3 – seater) and Load Carrier application.
- Upgradation of existing products to meet new emission norms & other rules as per CMVR 2010.
- Development of "No problem vehicle under Jagriti Project", improvements in product performance through suitable design and process changes in system/ subsystem. Components taken up for change / improvement include welded frame, Wheel Rim, Fork, Exhaust system, Clutch etc. with collaborative working with vendors.

5.3.5 Rajasthan Electronics & Instruments Ltd. (REIL)

Development of following new products has been taken up for the Agro-Dairy segment, Commercial production is proposed to be taken up in 2008-09.

- Design and development of Optical Milk Analyzer mini was taken on feed back regarding sample volume. The milk chamber & measurement device were re-designed accordingly. The product now accepts a sample volume of 50 ml as available in field. The product was field tried before release for commercial production.
- Design and development of Ultrasonic Milk Analyzer- Looking to critical market requirement & delay in development of UMA at M/S ELICO, the design was reviewed and modified based on test results & feedback. The modified version has been field tried successfully. The design is transformer based and is fully indigenous. Action has been initiated for trial production of 100 units.
- Solar e Bell was developed to the requirement of RE Division for use in schools or any institution. The controller, besides charging the batteries through solar works as a timer and rings the bell at pre-

selected intervals. The number of strokes and timing can be programmed through the controller.

- High Range RFID Reader- Based on the feedback from field, the Reader design was modified for extra long range to meet the working condition requirements. The modified reader has a read range of 10-12 inches as compared to 4-6 inches earlier. The reader has smoothened, the activities and reduced the reading time.
- The Digital EMT was designed & developed with the aim to provide a temper proof reliable solution to the dairy industry. The Digital EMT eliminates transformer, charger PCB and related circuit and uses an SMPS. The new machine is not only lighter by 3 Kgs. but also cost effective in production.
- The Smart Auto Electronic Milk Tester (Smart Auto EMT) is yet another product conceived & developed by in-house R&D. The product has all the advantages of Auto EMT together with capturing & processing of milk collection data and transferring the same on a Smart Card for sending to centralized place for further processing. The Smart Auto EMT has especially been developed for use in establishments with large number of members and also for those managed by women & senior citizens.
- Power Stroke Unit was designed & developed for use with existing Electronic Milk Testers for making the operation automatic from manual. The unit is extremely useful at locations with large number of samples.

5.3.6 Heavy Engineering Corporation Ltd. (HEC)

Specific areas in which R&D activities were carried out are detailed below:

- Four guide way Heavy Duty Centre Lathe model: LC125 HD has been designed for precision turning of job having max. dia 1000 mm over the carriage and maximum length 12000 mm.
- CNC Deep Hole Boring machine has been designed for solid drilling of diameter 110 mm and counter boring up to diameter 300 mm up to 12mm boring depth in ingots/ slag/ forging having 400 BHN hardness.
- 6- axis CNC Double Column Vertical Turning & Boring Machine with 2 Ram heads, model BV40/50 NM has been deigned with 4000 mm table diameter with large sixe Roller Thrust bearing for higher speed of table up to 50 rmp.
- Research and Product Development with of Heavy Machine Building Plant of the company successfully developed detailed design and drawing of following items:-
  - Auxiliary Equipment of Basic Oxygen Furnace (BOF) Shop for NINL on the basis of basic information and engineering provided by NINL:
  - 120 Tone Hot Metal Charging Ladle having conical shape with charging spout having flat bottom dished end.
  - 110T Steel Teeming Ladle in conical shape having flat bottom dished end and equipped with slide Gate & IPV Porous plug for gas agitations for ladle bottom
  - 20 M3 fabricated Scrap Box to be used for charging Scrap into converter.
  - Cranes of various capacity suiting to the customers' need and specification provided by Customers.
  - 6000T Wagon Pusher machine for handling 58 loaded railway wagons for BSL, Bokaro. For the first time. 6000T capacity wagon pusher having features like negotiation on curved rail track and rail clamping device for parking of wagon pusher designed.

5.3.7 HMT Limited

HMT has established R&D centres in every manufacturing unit to meet the needs of

research & development of different products with a focus to improve product technology and enhance product competitiveness. Highlights of R&D activities carried out/ planned in the different product area of HMT's domain are as below:

Tractors

(1) Engine Technology has to be up-graded to meet tractor emission norms Bharat (Term IV) Stage III A for 25-50 HP which will be applicable from 01.04.2010 and for 50 HP & above from 01.04.2011. Process is going on to acquire the engine technology. Expression of Interest (EOI) received and the same is under evaluation.

(2) EOI is also published for up-gradation of Tractor Transmission with matching Hydraulics

Machine Tools

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, upgrading the existing products with additional features. This approach has resulted in development of following products during 2007-08.

- Axle Manufacturing Machining Centre VMC – 400 M
- SBCNC 40 with automation and post processor
- Shell turn CNC with improved feed and protection
- 5 Axls CNC Heavy duty Cylindrical grinding machine model HCG 56 CNC.
- 5 Axls CNC Crank shaft pin grinding machine with auto hydraulic clamping and de-clamping of crank shaft.
- Centre less grinding machine model " face and chamfer" grinding machine.

5.3.8 Burn Standard Co. Ltd. (BSCL)

The company is in the process of entering into an agreement with CGCRI for collaborative research for up scaling of Alumina Mag. Carbon and Mag. Alumina Bricks for enhancement of the number of heats in Steel Ladle and Rotary Kiln in Cement Plants. Besides this, the wagon manufacturing units are also endeavouring to develop infrastructure to manufacture stainless steel wagons for Indian Railways. R&D activities undertaken at BSCL include:

Burnpur Works

Development of 25 T Axle load wagon with higher carrying capacity.

Salem Work

- Development of low cost MAG, CARBON bricks for ladles used in the metal zone and non impact zone for Rourkela Steel Plant and Bokaro Steel Plant.
- Developed very good quality Mag Chrome/ Chrome mag bricks using cheaper raw materials.

5.3.9 Braithwaite & Company Ltd. (BCL)

The Braithwaite & Company is trying to develop/ refurbish existing infrastructure for manufacture of stainless steel wagons for the Railways and also wagons for private sector and overseas customer. BCL is also entering into its non core area of operation like Bridge Girder fabrication, Column structure manufacturing, Civil structure, Crane manufacturing with the technology up gradation etc.

5.3.10 Braithwaite, Burn & Jessop Construction Company Ltd. (BBJ)

Besides usual technology base, in the field of construction of steel bridges including Cable Stayed bridges, the company has developed an effective Erection Scheme to replace old/early steel bridges in a very short time with newly fabricated girders during block period ton running line. This newly developed scheme has been successfully applied in Eastern Railway project. Recently BBJ had developed forward launching of

60M/450M Trussed Bridge which was successfully used in DMRC project.

5.3.11 Bridge & Roof Company (India) Ltd. (B&R)

The company has been continuously pursuing to update technology and upgrade quality standards along with R&D efforts. It has already established successful operations in many diversified areas such as Cross Country Pipeline mechanized Construction of Highways and Expressways, Metro Rail at Delhi, Furance and heaters, Main Boiler Work in Thermal Power Station, Storage Silos for Alumina, Bailey Bridge, Railway Wagons, Water Supply and Sewerage Systems LSTK Project.

The company has taken up the programme for updating of Quality Management System. The company has already been awarded ISO 9001–2000 Certificates in Tank Construction and Manufacture of Bailey Bridge and Wagons.

5.3.12 Andrew Yule & Company Ltd. (AYCL)

The Company has developed the following products as a part of its R&D program.

- 10 Pressure fed White Metal Bearings industrial fans
- Inlet Silencer size 700x2100 mm 1500 x 6000 and 600x1800mm for ED fan
- Design up-gradation & testing of 1600 Amps 11 KV Indoor VCM
- Design up-gradation for 33 KV PC VCB.
- Validation test for Yule HEAG make 11 KV 20 KA, 630 A outdoor VCB for capacitor bank switching test.
- Re- Engineered Design of 12 KV VCB Indoor Panel for reduced width and distinct compartmentalized enclosure for internal Arc suitably.
- Re- Engineered Design of 36 KV outdoor VCB for making provision of SF6 Gas filling.
- Re- Engineered Design of 36 KIV outdoor VCB for value Engineering & adopting ABB Interrupter.

5.3.13 Instrumentation Limited (IL)

- During the last ten years or so the company has been laying emphasis on applied R&D activities as basic R&D in Control & Instrumentation can not be extensively introduced because of insistence of " proven technology" by the end users, which are large process industries. However, various products such as Electronic ballast's Light sensing Switching devices, high capacity control valves, compact spring loaded actuators and their variants, pressure balanced control valves with quick change trim (which can with stand temperature of 500 degree celsius, Defence items like Nose Fuze, RPL Dosimeter reader, Firing device etc. have been developed. All these are additions to the product range.

In the last year, the Kota Unit has received Import substitution award for following products:

- Solenoid Valves for nuclear applications
- Throw – away thermocouples for measuring molten metal temperature
- Miniature Electronic Indicators.

5.3.14 Engineering Project (India) Ltd.

- As a turnkey project executing organization, EPI aims to organize its design and engineering activities with the goal of developing Indian Capabilities, materials and methods to meet the challenge of advancing technologies. Research & Development activities are focused to improve performance and efficiency in product cycle like achieve cost reduction while adopting advanced

technologies. Specific emphasis is laid in evolving improved features of design and use of materials under Indian conditions coupled with reducing dependence on importation. The successful use of natural fiber – based materials in soil engineering applications, use of Geo – textiles in River Bank concrete of large volume are some of the areas where indigenously developed materials & processes have enabled the Company to achieve an unique position in the construction industry. In–house design, uranium Ore Processing Plants has further strengthened EPI's capabilities.

- The Company endowed with the internationally acclaimed certification of ISO 9001-2000 Quality management System and ISO 14001:2004 Environment Management System covering its total range of operations. The Latest technologies available with the organization include Acid Concentration Plants, Chemical Process Plants, Specialized Ore Beneficiation Facilities for extraction of range earths etc. EPI is executing projects of laying underground sewerage and drainage line by using trench less technology (micro – tunneling technology) instead of conventional open cut method. This technology makes the underground pipe laying work faster with minimized excavated material and disposal requirement and with no environmental, economical and social disturbances (surface, traffic noise, vibration etc.)
- Specific project based collaborations are also arranged to meet the needs of modern industrial projects. Constant endeavour is made by EPI to keep abreast of the latest development in various areas and adopt new trends under the influence of globalization of industrial technologies.

5.3.15 Bharat Heavy Plates & Vessels Limited

Research & Development: Compact Fin Type Heat Exchangers were designed developed and supplied to Aeronautical Development Agency (ADA), Bangalore by the R&D Division, Based on this development, order has been bagged from HAL, Bangalore for supplying more such Heat Exchangers.

The following are some of the important achievements through R&D efforts:-

- During 2008-09, 08 Nos of Compact Heat Exchangers were fabricated, tested successfully and delivered to Aeronautical Development Agency (ADA), Bangalore. The scope includes fabrication, testing inspection and delivery for limited Series Production (LSP) of Tejas Light Combat Aircraft (LCA).
- Three Nos. of precooler units were successfully designed, developed, fabricated. tested & supplied for Tejas aircraft to Aeronautical Development Agency (ADA) Bangalore.
- Supplied aluminum Plate-in Compact heat Exchanger to Indira Gandhi Centre for Atomic Research, Kalpakkam after successfully completing design, development & testing.
- Two Nos. Oxygen concentrators for On Board Oxygen Generator System (OBOGS) for fighter planes were developed and supplied to Aeronautical Development Agency (ADA), Bangalore.
- BHPV was awarded Type Certificates for 8 types of Compact heat Exchangers, successfully developed by in-house R&D for the Indian Light Combat Aircraft (LCA) "Tejas". The Certificates were awarded by the Centre for Military Air Worthiness & Certification (CEMILAC), Bangalore on 30.03.09 at a function in BHPV.

5.3.16 Fluid Control Research Institute, Palakkad

FCRI is a premier facility in flow measurement related services and solutions. The Flow Centre at FCRI hosts traceable International standards for flow measurement, which are the most comprehensive set of flow facilities in the world and provide an unique resource for industry in India. All of the facilities are extended for commercial calibration, evaluation and R&D activities.

Strong links with the oil & gas sector, water industry, power industry, process/ manufacturing sector, automotive sector, R&D organisations etc. have been developed through joint industry projects. Regular seminars, workshops and conferences on topical issues related to flow measurement are undertaken for industry/ academics with FCRI support.

The Institute undertakes sponsored R & D projects and, as of now, has completed 125 projects making it one of the specialized fluids engineering research Institute dedicated to approved technological services such as consultancy, testing, certification and training for private and public sector Organizations.

The institute acts as a National Certifying body for flow measuring systems/ electronics and instrumentation. It facilitates acquiring quality conformance as per the norms of ISO 9000/ISO 17025 series and for execution of sponsored R&D projects.

FCRI successfully conducted the Global Conference - during 26th to 28th September 2007. More than 350 delegates from across the globe participated in the event and a wide participation was witnessed in the exhibition too with over 50 stalls put up by various flow product manufacturers from across the

The then Hon'ble Union Minister for Heavy Industries & Public Enterprises Shri Sontosh Mohan Dev being briefed about Air Flow Laboratory at FCRI, Palakhad

industry. Projects under execution/completed include:-

- Design & Development of High Pressure High Temperature module of multiphase Flow meters using Gamma Ray Attenuation Technique in conjunction with Venturi for Transient Stream Water Mixture.
- Supply of Endurance Test Bench of Prototype testing of pipe fittings has been completed successfully.
- The final report of the project – Field Efficiency/ Acceptance Test of 400 MW Hydro – Turbines and Flow measurement using Tracer method was completed successfully and the final Report for the same has been submitted during Sept. 2008
- Design development and commissioning of the facility for Jet Cavitations Erosion Rig as per ASTM G134 has been completed successfully. The set up has been installed & commissioned at the customers premises.
- Performance Testing of Micro Hydro Turbine. The centre has developed a prototype 10kW cross flow micro turbine targeting for the manufacture of micro turbines up to 100 kW capacity. FCRI has been entrusted to conduct the performance testing of the above model and produce the hill diagram.

- The project for Fatigue Testing of Axle Arms used in Arjun Battle Tank has been completed successfully and all the deliverables has been sent in time.
- Fire Water Hydrant network Analysis for M/s CPCL completed successfully .
- Design, Development & supply of Orifice/LFE assembly for TVS Motor Company Hosur (TN) has been completed successfully during April 2009. The project deliverables have been handed over to the TVS officials and a detailed description regarding the operation of the LFE was made by FCRI engineers at site.
- Simulation of Inter Wrappers flow (IWF) for Safety Grade Decay Heat Removal System.
- Setting up of flow measurement facility for testing flow meters up to 100mm at four Regional Reference Standards Laboratories.

5.3.17 Ceramic Technological Institute (CTI), Bangalore

The developmental objective of this project is to support the Indian Ceramic Industry in modernizing its technology and to develop new products of advanced ceramics. Areas of research at CTI relate to Nano-technology, Separation Technology, Microwave Processing, Plant related Investigations and special Projects. The institute has been working closely with some of the major international organizations namely Max Planck Institute, Germany; University of Utah, USA; and NIFS, Japan. Some of the major developments at CTI are Cordierite kiln furniture, Ceramic armour, Ceramic Honeycomb for Catalytic Convertor, Diesel Particulate filter and Ceramic Grinding media. Major ongoing R&D efforts are on Porous Ceramics for Industrial Water treatment, Membranes for gas separation and particulate filtration, Composite Insulators with Nano-additives and Nano material synthesis. Gas fired spray pyroliser for continuous synthesis of nano materials has been established for the first time in the country. Ceramic Micro to porous membranes for pre treatment of water for RO –DM application has been developed and technology transferred for manufacture. A filtration system based on ceramic membranes has been established for field evaluation. A pulsed microwave drying process for ceramic green components has been established.

5.3.18 Centre for Electric Transportation (CET), Bhopal

The project for development of Electric Transportation Technology was approved by the Govt. of India and United Nations Development Programme (UNDP) in July 1988. The capabilities in the Centre have been developed to analyze and test all aspects of electrically powered vehicle designs to improve their performance, reliability and efficiency.

Some of its achievements include Combined System Testing of Cape Gauge DEMU for Angola, Type Test on Traction Motors for IGBT based 3 phase drives for ACEMU, Combined System Testing of MG DEMU, Combined System Testing of GTO based 3 phase drive system for 1500 V DC/25 kV AC dual voltage EMUs for Central Railways, Combined System testing of IGBT based 700 HP Diesel Electric Locomotive, testing of import substitute traction alternator for 4000 HP Diesel electric locomotive for Indian Railways. Preparation for combined system testing of IGBT based 3 phase drive system for 25 Kv AC EMU is in progress.

5.3.19 Pollution Control Research Institute (PCRI), Haridwar

Pollution Control Research Institute (PCRI) was set up by Department of Heavy Industry with Bharat Heavy Electricals Ltd. (BHEL) as the lead agency under United Nations

Development Programme (UNDP). The objectives of PCRI are environmental management and pollution control in the areas of water, noise and solid waste management. The institute is recognized as Environmental Lab under Environment Protection Act 1986 by Central Pollution Control Board, Ministry of Environment and Forests, Govt. of India and number of State Pollution Control Boards. The institute is also recognized by Department of Science and Technology as in-house R&D unit of BHEL. The Institute has undertaken a number of R&D projects to develop industrial pollution control technologies, such as preparation of action plan for pollution control in Dehradun city; Characterizsation and quantification of effluent from various unit sized in thermal power plant for optimization of sizing of effluent treatment plants; preparation of environment management plan for " char dham" in Uttarkhand; Phytoremedation of dust from ambient air through selection of plant species, preparation of environmental guidelines for religious places in India, Effect of mass bathing on river Ganga and Kshipra during Kumbh mela in Haridwar and Ujjain, River water quality assessment for Ganga and Western Yamuna Canal at selected stretches under Ganga action plan assessment of heavy metal emission from thermal power plants, etc. Major R&D projects in hand include development of advance facilities for micro-biological analysis; Selection of tree/ plant species for green belt development to combat pollution in and around Thermal Power Plant: Assessment of water quality of river in Kumaon region of Uttarakhand. Assessment of fugitive emissions and development of environmental guidelines for control of fugitive emissions in Thermal Power Plant.

As part of capability building and resource development, training programmes are being organized regularly for the officials of State/ Central Pollution Control Boards and major industries. Two such programmes organized in 2008 are Air Quality Monitoring Network Design, and Quality Assurance and Municipal Solid waste management. Beside the institute is nominated as State Referral Laboratory by "SWAJAL" of Govt. of Uttarakhand for establishment of drinking water quality testing and quality surveillance through setting up of laboratories in village/ district level of Uttarakhand.

The institute is accredited by National Registration Board for Personnel & Training (NRBPT) a constituent of Quality Council of India, as approved EIA consultant. The institute is playing a vital role in performing year long comprehensive Environmental impact Assessment Studies for setting up large size industrial projects like thermal power plants, Petroleum product pipelines and oil terminals, nuclear fuel processing plant etc. Such studies under progress by the institute include proposed thermal power plants at Sinor, Wanakbori, Junagarh in Gujarat; Obra, Panki, Bara, Karchanan in Uttar Pradesh and Korba South in Chhatisgarh and nuclear fuel processing plant at Tarapur.

5.3.20 Welding Research Institute (WRI), Tiruchirapalli

Welding Research Institute (WRI), the only one of its kind in the country, is equipped with state-of-the-art welding research facilities like electron and laser beam, flash butt, friction and plasma welding in addition to facilities for conventional arc welding. Further, it has advanced testing facilities for fatigue testing, residual stress measurement, residual life estimation etc. The institute has been providing services to ISRO, Indian Railways, Defence and Industry in Public and Private sector. The Institute maintains close contact with various national and international level associations/organizations, like Paton Welding Institute (PWI), Ukraine,

American Welding Society (AWS), WTIA, Australia etc. major customers, and researchers to share and publicize developments in welding related fields. A new one year Post Graduate Certificate Programme in Welding and Quality Engineering has been introduced this year along with PSG College of Technology Coimbatore . Major ongoing R&D projects include development of fabrication procedures in new materials for Super Critical Boilers, Development of Friction Stir Welding Technology, study of welding fumes, Development of Robotic Time Twin Technology, Development of HVOF & Wire Spraying Technology for boiler components, Magnetically Impelled Arc Butt welding of tubes, Activated TIG welding, application of orbital welding for site conditions, deformation resistance welding process, fatigue life improvement techniques, etc. It also conducts Skill development program for welders with the assistance of Department of Science & Technology (DST), Govt. of India. The institute is an approved centre for training & testing of Welders as per Central Boiler Board, Govt. of India as per IBR. The institute conducts training/certification programmes for practicing engineers & technicians in welding & non-destructive testing on a regular basis.

Chapter 6

Welfare of SC/ST/OBC/PWDs and Minorities

6.1 This Department is highly conscious regarding obligations of Central Public Sector Enterprises to promote the welfare of minorities in the light of Government's directive on this subject. Instructions issued by the Government in respect of reservation in appointment/promotions for SC/ST/OBC, handicapped persons and minority communities are followed by CPSEs under the Department.

6.2 An SC/ST Cell has been functioning under the supervision of a Liaison Officer of the rank of Director for proper monitoring of the implementation of reservation policy of Government of India. This Cell is also responsible for conducting annual inspections of reservation rosters of the CPSEs. The work force in the CPSEs consists of a large number of persons from different minority communities. Their integration into the mainstream workforce is emphasized in all CPSEs and there is no discrimination on account of their caste, creed or religious beliefs. In terms of facilities like residential accommodation etc. all employees are treated at par.

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

6.4 All operating CPSEs under this Department have been advised to comply with the provisions of the "Persons with Disabilities" (Equal opportunities , Protection of Rights and Full participation) Act,1995. Most of the CPSEs under the Department of Heavy Industry are sick /incurring losses resulting in very limited recruitment in the last few years. Nevertheless, CPSEs are keeping these instructions in view whenever recruitment is made. BHEL, a major profit making CPSE under this Department, have appointed 172 persons with disabilities in various categories during the last ten years.

6.5 Efforts are made by the CPSEs to follow the instructions issued by the Government from time to time to promote the welfare of persons with disabilities. Persons with disabilities are provided facilities like special conveyance allowance, ground floor residential accommodation, exemption from payment of professional tax, to and fro transportation facilities, provision of medical equipments and general medical assistance. The visually handicapped persons are provided Braille symbols and are engaged in running telephone booths, repair of cane chairs etc. Special Schools are being run for mentally challenged children & visually handicapped persons. These facilities are being provided to enable them to discharge their duties and facilitate their integration into the mainstream workforce.

Chapter 7
Empowerment / Welfare of Women

7.1 Department of Heavy Industry and the CPSEs under its administrative control constantly endeavor to ensure that there is no discrimination against women on any count. All members of the staff are made conscious of the principles of gender mainstreaming and gender justice enshrined in the Constitution of India.

7.2 In order to create awareness regarding human rights especially of female employees, 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, a Complaints Committee headed by a woman officer is in place in this Department for redressal of complaints related to sexual harassment of women. Department actively encourages women employees to freely participate in all activities like meetings, seminars, competitions and training etc. This helps in ensuring their integration into the mainstream work force.

7.3 In terms of Ministry of Finance, Department of Economic Affair's instructions, a Gender Budgeting Cell has been constituted in the Department to address issues pertaining to gender budgeting.

Chapter 8

Vigilance

8.1 Vigilance activity is an essential requirement of any organization. The Department has a Chief Vigilance Officer of the rank of Joint Secretary to look into complaints against the employees of the Department as well as Board Level Officers of the Central Public Sector Enterprises and Organisations under its administrative control. He is assisted by a Director and one Under Secretary along with a Vigilance Section.

8.2 The main areas of work of Vigilance Section are:

- Dealing with complaints against Board level appointees of CPSEs as well as the officers of the Department of Heavy Industry;
- Issue of vigilance clearance in respect of Board level appointees in CPSEs and all other appointments based on PESB recommendation requiring ACC approval;
- Liaisoning with CVC, CBI and CVOs of CPSEs under DHI to streamline flow of information in respect of vigilance matters;
- Tendering advice on issues of financial and procedural irregularity;
- Vetting charge sheet in respect of charges against Board level appointees.

8.3 The vigilance Organization also lays emphasis on preventive vigilance and is promoting the use of IT to bring about greater transparency. Even punitive measures are also taken in appropriate cases and followed up wherever required.

8.4 Vigilance Section is responsible for maintaining Annual Confidential Reports of officers and staff of the Department and also of the Board level appointees & Central Vigilance Officers (CVOs) of CPSEs under the administrative control of this Department.

8.5 Vigilance Section also monitors submission of Annual Property Returns by officers and staff of the Department of Heavy Industry as well as the Chief Executives and Directors of the CPSEs under Department of Heavy Industry.

Chapter 9

Progressive Use of Hindi

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

9.2 During the period under review, the Parliamentary Committee on Official Language inspected the offices of (i) Bharat Heavy Electricals Ltd., Haridwar (ii) Bharat Heavy Electricals Ltd., EDN Bangalore (iii) H.M.T. Food Processing Unit, Aurangabad (iv) Bharat Heavy Electricals Ltd., Bhopal and has expressed satisfaction with the progress of Hindi. The officers of the Department carried out inspections of some enterprises during the year to monitor progress made in the use of Hindi and the officers of these enterprises so visited were apprised of the Official Language Policy of the Government of India.

9.3. All the Notifications, Resolutions, Notes and Circulars, Parliament Questions, Annual Reports, (Budget Performance) General Orders and papers laid on the Tables of both Houses of the Parliament were issued both in Hindi and in English. All the letters received in Hindi were responded to in Hindi. In order to promote the use of Hindi and to increase correspondence in Hindi "Hindi Pakhwara" was organized from 1st September, 2008 to 15th September, 2008 during which several competitions including Noting/drafting, Translation from English to Hindi and vice-versa, Hindi typing on Computer, Hindi Poem, Recitation etc. were conducted. Staff of the Department participated in these activities with keen interest. Cash awards were given to winning candidates by Hon`ble Minister of State (Heavy Industries & Public Enterprises). A workshop was also organized for officers/employees of the Department to impart training in noting/drafting in Hindi as well as filling up the proforma for quarterly report for progressive use of Hindi correctly. They were also apprised of the Official Language Act, 1963.

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

I. Under rule 10(4) of the Official Language (Use for official purpose of the Union) Rule, 1976, vide which the Central Government is required to notify the offices where more than 80% staff have acquired working knowledge of Hindi. Thus, in all, 61 PSUs and its units have so far been notified by the Department.

II. Implementation of the programme of learning Hindi through **"AAJ KA SHABDA".**

9.5 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 organised in these CPSEs to propagate use of Hindi. **"HINDI PAKHWARA/ HINDI WEEKS"** were celebrated in these CPSEs with great zeal.

Annexure-I

Allocation of Business to the Department of Heavy Industry

Department of Heavy Industry used to be one of the Departments of Ministry of Industry. With effect from 15th October, 1999, a separate Ministry viz. Ministry of Heavy Industries & Public Enterprises has been created. The Ministry comprises the Department of Heavy Industry and Department of Public Enterprises. The Department of Heavy Industry has been allocated the following items of work:

A. Work relating to following CPSEs

1. Heavy Engineering Corporation Limited
2. Mining and Allied Machinery Corporation Limited
3. Engineering Projects (India) Limited
4. Bharat Heavy Electricals Limited

SUBSIDIARY

Bharat Heavy Plates and Vessels Limited

5. HMT Limited

SUBSIDIARIES

a) HMT (Bearing) Limited
b) HMT (International) Limited
c) HMT (Machine Tools) Limited
d) HMT (Watches) Limited
e) HMT (Chinar Watches) Limited
f) Praga Tools Limited

6 Scooters India Limited.
7. Andrew Yule and Company Limited
8. Bharat Ophthalmic Glass Limited
9. Bharat Leather Corporation Limited
10. Cement Corporation of India Limited
11. Cycle Corporation of India Limited
12. Hindustan Cables Limited
13. Hindustan Paper Corporation Limited
14. Hindustan Photo Films Manufacturing Company Limited
15. Hindustan Salts Limited
16. Hooghly Printing Company Limited
17. Instrumentation Limited
18. Nagaland Pulp and Paper Company Limited
19. National Bicycle Corporation of India Limited
20. The National Industrial Development Corporation Limited
21. National Instruments Limited
22. NEPA Limited
23. Rajasthan Electronics and Instruments Limited
24. Hindustan Newsprint Limited
25. Tannery and Footwear Corporation of India Limited
26. Tyre Corporation of India Limited
27. Rehabilitation Industries Corporation Limited
28. Sambhar Salts Limited
29. Fluid Control Research Institute (Autonomous Body)
30. Bharat Bhari Udyog Nigam Limited

SUBSIDIARIES

(a) Bharat Brakes and Valves Limited
(b) Bharat Process and Mechanical Engineers Limited
(c) Bharat Wagon and Engineering Company Limited
(d) Braithwaite and Company Limited
(e) Burn Standard Company Limited
(f) Braithwaite, Burn & Jessop Construction Company Limited
(g) Reyrolle Burn Limited
(h) Weighbird (India) Limited

31. Bharat Yantra Nigam Limited

SUBSIDIARIES

a) Triveni Structurals Limited
b) Tungabhadra Steel Products Limited
c) Bharat Pumps and Compressors Limited
d) Richardson and Crudas (1972) Limited
e) Bridge and Roof Company (India) Limited

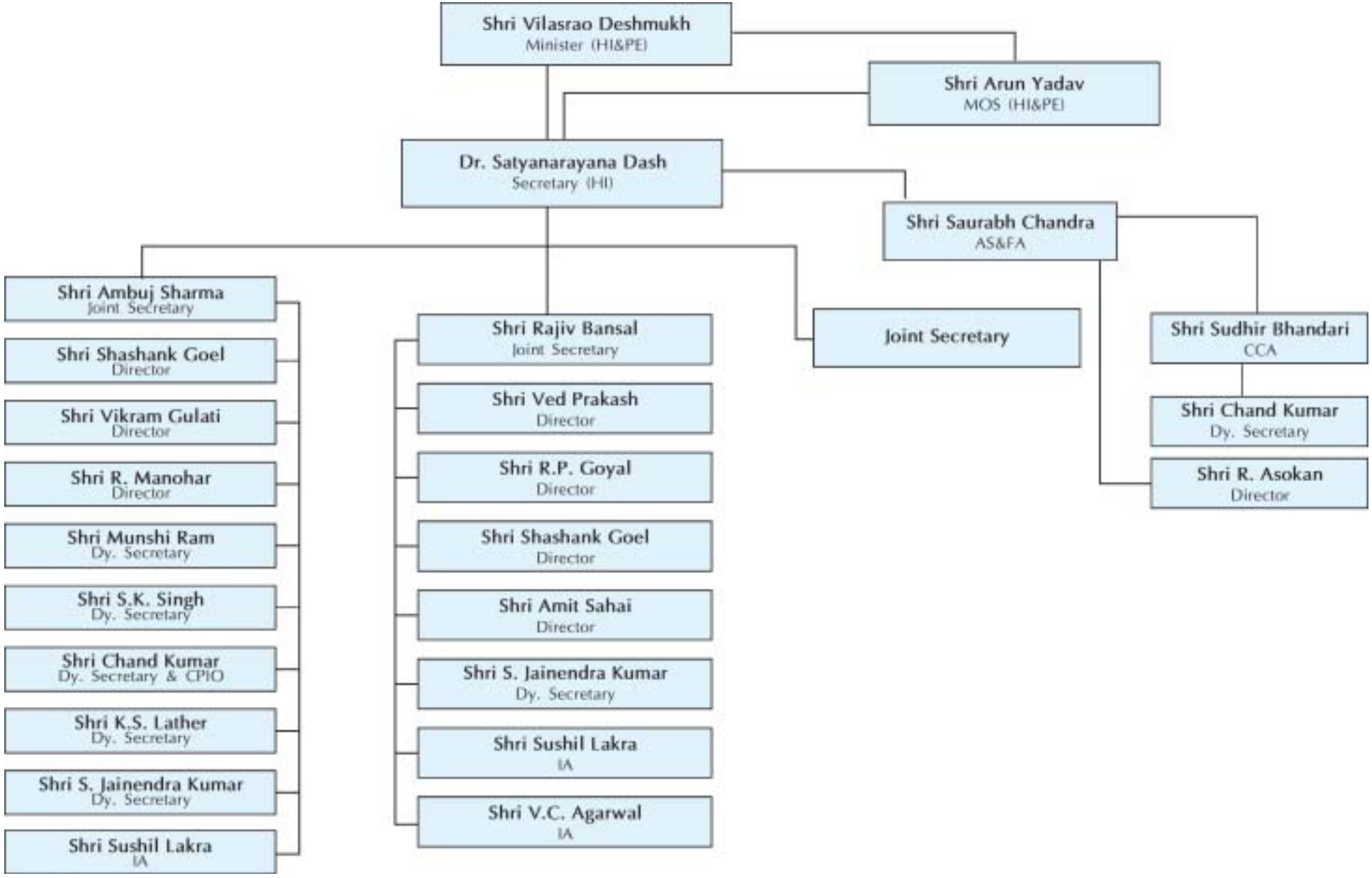
B. OTHER SUBJECTS

1. Manufacture of Heavy Engineering Equipment for all industries.
2. Heavy Electrical Engineering Industries.
3. Development Council for Heavy Electrical and Allied Industries
4. Machinery Industries including Machine Tools and Steel Plant Equipment Manufacturing.
5. Development Council for Textile Machinery Industry
6. Development council for Machine Tools
7. Auto Industries, including tractors and earth moving equipment
8. Development Council for Automobile and Allied Industries
9. All diesel engines including automobile engines
10. The Automotive Research Association of India
11. National Automotive Testing Research & Development Infrastructure Project (NATRiP) and NATRiP Implementation Society (NATIS)
12. Forging Industry Research Institute of India

Annexure-II

ORGANOGRAM OF DEPARTMENT OF HEAVY INDUSTRY

(As on 25.07.2009)



General Information about CPSEs under DHI

Sl. No.	Name of CPSE and location of Registered Office	Year of setting up of CPSE	Gross Block as on 31.3.2009 (Provisional) (Rs. in Crore)
1.	Andrew Yule & Co.Ltd., (AY&CO), Kolkata	1979	124.74
2.	Hooghly Printing Co. Ltd., Kolkata	1979	4.75
3.	Bharat Heavy Electricals Ltd., (BHEL), New Delhi	1956	6382.00
4.	Burn Standard Co. Ltd., (BSCL) Kolkata	1976	141.65
5.	Braithwaite & Co.Ltd., (BCL) Kolkata	1976	54.00
6.	Brithwaite, Burn &Jessop Construction Co.Ltd., (BBJ)	1987	9.35
7.	Bharat Heavy Plate & Vessels Ltd., (BHPV) Vishakhapatnam	1966	79.99
8.	Bharat Pumps & Compressors Ltd., (BPCL) Allahabad	1970	38.01
9.	Richardson & Cruddas (1972) Ltd., (R&C) Mumbai	1972	30.00
10.	Triveni Structurals Ltd., (TSL) Allahabad	1965	19.34
11.	Tunghabhadra Steel Products Ltd., (TSPL) Hospet, Karnataka	1967	20.87
12.	Bridge and Roof Co.(India) Ltd., (B&R) Kolkata	1972	173.67
13.	Hindustan Cables Ltd., (HCL) Kolkata	1952	525.88
14.	Heavy Enginering Corpn.Ltd., (HEC), Ranchi	1958	331.41
15.	HMT Ltd., (Holdg Co.) Bangalore	1953	132.63
16.	HMT Machine Tools Ltd., (HMT) Bangalore	2000	272.35
17.	HMT Watches Ltd, Bangalore	2000	189.75
18.	HMT Chinar Watches Ltd., Jammu	2000	12.02
19.	HMT (Bearings) Ltd., Hyderabad	1981	30.11
20.	HMT(International) Ltd., Bangalore	1974	7.39
21.	Instrumentation Ltd, (IL) Kota	1964	69.11
22.	Rajasthan Electronics & Instruments Ltd., (REIL), Jaipur	1981	20.60
23.	Scooters India Ltd., (SIL) Lucknow	1972	55.70
24.	Cement Corpn.of India Ltd., (CCI), New Delhi	1965	648.18
25.	Hindustan Paper Corporation Ltd (HPC) Kolkata	1970	942.11
26.	Hindustan Newsprint Ltd., (HNL) Vellore, Kottayyam	1983	399.68
27.	Hindustan Photo Films Mfg. Co. Ltd. (HPF) Ooty	1960	721.00
28.	Hindustan Salts Ltd., (HSL) Jaipur	1959	10.50
29.	Sambhar Salts Ltd., (SSL) Jaipur	1964	12.90
30.	Nepa Ltd., (NEPA) Nepanagar	1958	115.57
31.	Tyre Corpn.of India Ltd., (TCIL) Kolkata	1984	160.86
32.	Engineering Projects (India) Ltd., (EPI) New Delhi	1970	15.16
	TOTAL:		**11751.28**

Note: (i) 13 CPSEs namely, BPME, WIL,BBVL, TAFCO,CCIL, BLC, NBCIL, MAMC, NIDC, BOGL, RIC & BYNL have been closed and one CPSE (NPPC) is not in operation).

(ii) BWEL has been transferred to Ministry of Railways on 13.8.2008. NIL has also been transferred to Jadavpur University, Kolkata on 7.1.2009.

(iii) The merger scheme of PTL with HMT (MT). has been appproved by BIFR in the hearing held on 12.6.2008.

(iv) Apart from above 32 operating CPSEs, there is one non-manufacturing holding company i.e. BBUNL.

Annexure IV

Employment Position including SC, ST & OBCs as on 31.3.2009 in CPSEs under DHI

Sl. No.	Name of PSE	Total Number of Employees				Number of SC/ST/OBC		
		Executives	Supervisors	Workmen Others	Total	SC	ST	OBC
1	2	3	4	5	6	7	8	9
1.	AYCL	198	140	15438	15776	1032	4349	4558
2.	Hooghly Ptg	6	7	45	58	3	0	0
3.	BHEL	11038	8872	25337	45247	8815	2239	5329
4.	BSCL	121	0	1334	1455	157	10	276
5.	BCL	65	25	382	472	51	1	1
6.	BBJ	48		45	93	6	1	3
7.	BHPV	307	74	989	1370	236	105	264
8.	BPCL	190	59	813	1062	166	3	314
9.	R&C	17	16	32	65	9	0	6
10.	TSL	51	14	124	189	26	0	69
11.	TSP	13	15	76	104	27	3	29
12.	B&R	706	0	777	1483	164	5	58
13.	HCL	380	451	2078	2909	747	222	193
14.	HEC	1359	278	1231	2868	325	572	720
15.	HMT (Hldg Co.)	275	132	1798	2205	518	99	26
16.	HMT (MT)	866	414	2546	3826	670	185	939
17.	HMT (Watches)	200	217	1633	2050	363	96	331
18.	HMT (Chinar Watches)	5	27	196	228	16	3	0
19.	HMT (Bearings)	22	38	203	263	38	0	104
20.	HMT (International)	53	0	8	61	9	4	1
21.	IL	240	697	451	1388	227	65	209
22.	REIL	66	64	85	215	43	6	40
23.	SIL	235	67	1064	1366	281	1	370
24.	CCI	134	178	848	1160	149	108	135
25.	HPC	557	208	1995	2760	279	215	152
26.	HNL	207	94	735	1036	72	5	235
27.	HPF	101	227	484	812	134	44	362
28.	HSL	9	30	75	114	12	6	16
29.	SSL	9	27	75	111	25	9	34
30.	NEPA	121	0	1282	1403	122	22	78
31.	TCIL	35	18	157	210	14	0	0
32.	EPIL	358	95	19	472	86	21	46
	TOTAL	**17992**	**12484**	**62355**	**92831**	**14822**	**8399**	**14898**

Note: (i) 13 CPSEs namely, BPME, WIL,BBVL, TAFCO,CCIL, BLC, NBCIL, MAMC, NIDC, BOGL, RIC & BYNL have been closed and one CPSE (NPPC) is not in operation).

(ii) BWEL has been transferred to Ministry of Railways on 13.8.2008. NIL has also been transferred to Jadavpur University, Kolkata on 7.1.2009.

(iii) The merger scheme of PTL with HM(MT) Ltd. has been appproved by BIFR in the hearing held on 12.6.2008.

(iv) Apart from above 32 operating CPSEs, there is one non-manufacturing holding company i.e. BBUNL.

Production Performance of CPSEs under DHI

(Rs. in crore)

Sl.No.	Name of CPSE	2005-06 (Actual)	2006-07 (Actual)	2007-08 (Actual)	2008-09 (Provisional)	2009-10 (Target)
1	2	3	4	5	6	7
1.	AY&CO	111.27	137.36	164.58	181.01	230.79
2.	Hooghly Printing	5.09	4.07	4.30	6.58	11.00
3.	BHEL	14525.00	18739.00	21401.00	28033.00	31000.00
4.	BHPV	122.05	180.36	187.60	70.82	210.00
5.	BSCL	181.63	233.08	242.58	233.20	293.71
6.	BCL	81.33	106.21	104.16	126.01	198.04
7.	BBJ	57.89	80.17	87.72	67.57	120.00
8.	BPCL	103.00	150.00	195.00	237.43	295.00
9.	R&C	31.00	54.00	76.78	209.94	90.00
10.	TSL	1.00	4.00	4.77	4.65	6.00
11.	TSP	2.00	2.00	3.38	1.44	5.62
12.	B&R	507.00	612.67	714.79	935.07	1000.00
13.	HCL	6.07	3.66	2.07	0.97	
14.	HEC	165.63	280.81	386.69	412.63	525.84
15.	HMT (Holding Co.)	236.01	212.30	177.72	134.34	328.45
16.	HMT (MT)	224.63	215.29	235.18	188.12	504.92
17.	HMT (Watches)	29.17	39.46	18.99	15.35	90.00
18.	HMT (Chinar Watches)	2.97	3.69	2.35	0.40	5.00
19.	HMT (B)	25.00	24.40	13.13	7.01	43.08
20.	HMT (I)	14.89	31.45	25.14	16.25	37.00
21.	IL	219.98	228.34	246.81	255.80	385.00
22.	REIL	50.00	72.10	81.50	72.10	92.00
23.	SIL	175.15	192.32	152.77	117.48	204.48
24.	CCI	230.03	325.72	342.63	365.17	352.90
25.	HPC	677.59	721.60	831.66	657.37	883.07
26.	HNL	303.01	315.31	298.61	344.77	443.81
27.	HPF	15.37	17.68	18.26	23.74	26.00
28.	HSL	6.67	7.79	14.22	26.67	23.83
29.	SSL	8.22	10.37	17.21	17.66	27.92
30.	NEPA	58.73	83.26	103.75	106.30	110.40
31.	TCIL	144.75	155.05	224.28	128.37	223.88
32.	EPI	637.38	763.61	851.05	961.42	1050.00
	Total	**18959.51**	**24007.13**	**27230.68**	**33958.64**	**38817.74**

Note: (i) 13 CPSEs namely, BPME, WIL,BBVL, TAFCO,CCIL, BLC, NBCIL, MAMC, NIDC, BOGL RIC & BYNL have been closed and one CPSE (NPPC) is not in operation).

(ii) BWEL has been transferred to Ministry of Railways on 13.8.2008. NIL has also been transferred to Jadavpur University, Kolkata on 7.1.2009.

(iii) The merger scheme of PTL with HM(MT) Ltd. has been appproved by BIFR in the hearing held on 12.6.2008.

(iv) Apart from above 32 operating CPSEs, there is one non-manufacturing holding company i.e. BBUNL.

Annexure VI

Profit(+)/Loss(-) (before tax) of CPSEs under DHI

(Rs. in crore)

Sl.No.	Name of CPSE	2005-06 (Actual)	2006-07 (Actual)	2007-08 (Actual)	2008-09 (Provisional)	2009-10 (Target)
1	2	3	4	5	6	7
(A)	**Profit making PSEs**					
1.	AYCL	-73.35	-90.11	2.07	20.98	8.39
2.	Hooghly Printing	0.39	0.20	0.04	0.05	0.32
3.	BHEL	2564.00	3736.00	4430.39	4849.00	5902.00
4.	BPCL	1.84	19.11	31.85	37.70	42.62
5.	B&R	3.11	7.17	11.27	24.10	18.50
6.	BCL	2.21	0.56	0.61	1.42	4.60
7.	BBJ	0.54	1.39	1.84	1.55	3.08
8.	CCI	831.84	166.61	40.89	45.42	16.02
9.	EPI	13.31	17.55	20.14	24.90	25.60
10.	HEC	-86.89	2.86	3.46	16.12	21.55
11.	HPC	87.98	120.31	136.74	50.10	92.03
12.	HNL	27.36	45.08	18.10	20.20	88.16
13.	HMT (International)	0.98	1.64	1.02	0.99	0.68
14.	SSL	-1.26	-0.91	0.11	0.92	1.32
15.	IL	-23.96	-27.80	-33.36	0.45	10.20
16.	REIL	3.16	3.48	1.37	1.54	2.45
Sub-total for (A) Profit making Companies		**3351.26**	**4003.14**	**4666.54**	**5095.44**	**6228.81**
(B)	**Loss making PSEs**					
17.	BSCL	-442.74	-151.87	-151.26	-199.92	-233.10
18.	TSP	-30.09	-37.50	-20.46	-19.41	-24.68
19.	HSL	-0.57	-0.41	0.05	-0.48	0.24
20.	BHPV	-71.38	-34.70	-51.71	-133.15	-62.29
21.	R&C	-42.59	-37.62	-59.60	-25.31	-36.00
22.	TSL	-48.87	-46.86	-50.79	-48.26	-47.22
23.	HCL	-295.32	-310.68	-434.98	-485.86	-445.11
24.	HMT (Hldg. Co.)	13.55	40.48	-45.97	-58.94	-28.90
25.	HMT (Bearings)	0.31	-6.80	-18.44	-10.90	-2.01
26.	HMT (Machine Tools)	-6.56	-149.25	-39.93	-45.81	13.98
27.	HMT (Watches)	-76.13	-195.66	-146.80	-167.33	-7.29
28.	HMT (Chinar Watches)	-30.86	-39.89	-49.02	-70.16	-34.71
29.	HPF	-560.90	-653.06	-685.48	-832.58	-909.00
30.	SIL	1.90	-22.50	-22.43	-27.84	-14.15
31.	NEPA	-45.32	-44.44	-37.34	-41.75	-48.17
32.	TCIL	-47.93	-47.91	-49.20	-56.81	3.36
Sub-total (B) Loss making Companies		**-1683.50**	**-1738.67**	**-1863.36**	**-2224.51**	**-1875.05**
GRAND TOTAL(A&B)		**1667.76**	**2264.47**	**2803.18**	**2870.93**	**4353.76**

Note: (i) 13 CPSEs namely, BPME, WIL,BBVL, TAFCO,CCIL, BLC, NBCIL, MAMC, NIDC, BOGL, RIC & BYNL have been closed and one CPSE (NPPC) is not in operation).

(ii) BWEL has been transferred to Ministry of Railways on 13.8.2008. NIL has also been transferred to Jadavpur University, Kolkata on 7.1.2009.

(iii) The merger scheme of PTL with HM(MT) Ltd. has been appproved by BIFR in the hearing held on 12.6.2008.

(iv) Apart from above 32 operating CPSEs, there is one non-manufacturing holding company i.e. BBUNL.

Annexure VII

Salary/Wage Bill & Social Overheads as % of Turnover of CPSEs under DHI

Sl.No.	Name of CPSEs	Wages and salaries as % of Turnover					Social overheads as % of Turnover				
		2005-06 (Actual)	2006-07 (Actual)	2007-08 (Actual)	2008-09 (Provisional)	2009-10 (Target)	2005-06 (Actual)	2006-07 (Actual)	2007-08 (Actual)	2008-09 (Provisional)	2009-10 (Target)
1	2	3	4	5	6	7	8	9	10	11	12
1.	AY&CO	41.98	37.33	31.82	31.71	24.61	11.29	10.95	9.77	9.2	8.60
2.	Hoogly Ptg.	30.13	34.66	29.21	18.30	12.81	1.08	1.90	2.16	1.59	1.22
3.	BHEL	12.94	13.08	14.70	14.67	13.68	1.89	1.86	1.86	1.62	1.66
4.	BSCL	13.00	15.00	15.00	13.00	10.00	1.00	2.00	2.00	2.00	2.00
5.	BCL	15.00	14.00	15.00	11.00	8.00	0.80	0.80	1.00	1.20	0.80
7.	BBJ	7.90	7.80	9.90	9.00	9.40	0.50	0.40	0.50	0.50	0.60
8.	BHPV	23.45	17.38	21.66	104.08	22.58	2.89	2.17	2.69	8.07	3.30
9.	BPCL	26.31	18.70	15.18	18.93	12.97	1.02	0.96	0.79	0.85	0.51
10.	R&C	6.00	3.00	2.00	2.00	2.00	0.40	0.30	0.10	0.10	0.10
11.	TSL	930.00	178.00	140.00	83.00	67.00	95.00	21.00	16.00	11.00	10.00
12.	TSP	67.32	87.10	44.34	124.00	32.00	29.29	48.84	19.32	59.00	15.00
13.	B&R	6.75	5.56	6.27	6.63	5.40	1.38	1.36	1.16	0.96	1.00
14.	HCL	735.32	1732.76	2090.04			62.42	119.91	139.93		
15.	HEC	30.40	20.60	17.50	18.50	16.30	-1.50	-0.40	-0.90	-0.50	0.80
16.	HMT(Hldg)	23.47	27.20	38.44	40.15	21.89	3.67	6.26	6.34	7.00	7.20
17.	HMT(MT)	59.00	45.00	47.00	34.00	33.00	2.00	2.00	2.00	1.00	1.00
18.	HMT(Watches)	230.00	117.00	308.00	354.00	39.00	4.00	2.00	5.00	6.00	1.00
19.	HMT(Chinar)	777.00	500.00	993.00	1212.00	142.00	53.00	34.00	66.00	94.00	11.00
21.	HMT(B)	32.66	30.88	50.97	100.00	17.62	4.31	4.23	6.63	7	7.50
22.	HMT(I)	8.46	7.25	7.96	12.49	6.92	2.31	1.98	1.56	1.16	0.43
23.	IL	17.01	17.05	16.44	16.55	13.89	0.97	0.78	0.76	1.61	1.07
24.	REIL	8.38	7.82	10.32	12.50	13.00	1.62	1.28	1.45	1.60	1.70
25.	SIL	14.27	13.85	18.60	23.84	13.65	5.54	5.14	8.98	11.18	6.40
26.	CCI	21.50	8.19	8.19	7.32	7.54	10.25	3.93	3.68	2.94	3.39
27.	HPC	8.29	8.71	10.28	12.47	11.15	3.41	3.40	3.63	4.52	3.88
28.	HNL	8.27	8.73	9.92	8.62	8.88	5.03	4.90	4.98	5.44	4.14
29.	HPF	87.89	95.34	94.06	49.37	49.04	3.85	3.96	3.40	1.9	1.92
30.	HSL	48.17	40.04	25.10	13.39	18.43	3.91	2.18	1.81	1.01	1.42
31.	SSL	44.99	36.47	27.31	18.11	14.28	3.28	2.98	2.10	1.75	1.46
32.	NEPA	24.00	22.00	17.00	19.00	20.00	5.00	2.00	1.00	3.00	3.00
33.	TCIL	30.49	30.78	35.34	48.26	33.12	2.22	2.45	2.75	3.15	2.43
34.	EPIL	2.95	2.85	3.26	2.93	3.00	0.81	0.73	0.61	0.76	0.77

Note : (i) 13 CPSEs namely, BPME, WIL,BBVL, TAFCO,CCIL, BLC, NBCIL, MAMC, NIDC, BOGL, RIC & BYNL have been closed and one CPSE (NPPC) is not in operation).

(ii) BWEL has been transferred to Ministry of Railways on 13.8.2008. NIL has also been transferred to Jadavpur University, Kolkata on 7.1.2009.

(iii) The merger scheme of PTL with HM(MT) Ltd. has been appproved by BIFR in the hearing held on 12.6.2008.

(iv) Apart from above 32 operating CPSEs, there is one non-manufacturing holding company i.e. BBUNL.

Annexure VIII

Order book position of CPSEs under DHI

(Rs. in crore)

Sl. No.	CPSE	As on 1.10.2004	As on 1.10.2005	As on 1.10.2006	As on 1.10.2007	As on 31.03.2009 (Provisional)
1	2	3	4	5	6	7
1.	AYCL	86.05	93.91	68.51	62.28	42.70
2.	Hooghy Ptg	1.50	6.50	1.27	0.90	1.50
3.	BHEL	23650.00	32000.00	37500.00	55000.00	117000.00
4.	BSCL	152.80	102.80	106.92	183.64	215.22
5.	BCL	144.11	228.72	255.05	201.73	272.86
6.	BBJ	73.52	116.54	126.35	144.49	953.97
7.	BHPV	134.53	388.69	243.67	196.87	235.73
8.	BPCL	48.68	130.65	136.20	232.87	295.18
9.	R&C	14.00	54.00	60.00	64.00	110.52
10.	TSL	22.37	16.25	8.29	10.86	2.94
11.	TSP	9.50	5.50	3.02	1.86	0.08
12.	B&R	520.19	722.55	1217.47	1875.18	1701.14
13.	HCL	138.25	2.57	5.80	3.25	4.18
14.	HEC	159.91	244.58	524.84	671.33	1899.15
15.	HMT(Hldg)					
16.	HMT(MT)	166.65	175.31	196.77	181.55	188.17
17.	HMT(Watch)					
18.	HMT(Ch.watch)					
19.	HMT(Bearing)	2.19	2.40	2.50	2.23	0.90
20.	HMT(I)	21.68	7.51	35.81	18.51	21.55
21.	IL	165.00	158.00	170.00	248.84	265.00
22.	REIL	17.82	22.01	20.23	44.52	24.23
23.	SIL*					
24.	CCI	7.13		12.50		
25.	HPC	27.46	12.76	8.26	119.06	75.97
26.	HNL					
27.	HPF	2.85	2.85	1.46	2.75	1.00
28.	HSL	6.10	4.19	12.93	26.58	7.38
29.	SSL	1.06	1.63	5.76	6.28	3.10
30.	NEPA	13.15	51.70	78.73	64.69	148.62
31.	TCIL	1.00	3.00	3.60	4.10	3.78
32.	EPIL	1459.96	1580.39	1225.54	1957.57	3148.36
	TOTAL	**27047.46**	**36135.01**	**42031.48**	**61325.94**	**126623.23**

*Goods are produced for stock & sale

Note: (i) 13 CPSEs namely, BPME, WIL,BBVL, TAFCO,CCIL, BLC, NBCIL, MAMC, NIDC, BOG, RICL & BYNL have been closed and one CPSE (NPPC) is not in operation).

(ii) BWEL has been transferred to Ministry of Railways on 13.8.2008. NIL has also been transferred to Jadavpur University, Kolkata on 7.1.2009.

(iii) The merger scheme of PTL with HM(MT) Ltd. has been appproved by BIFR in the hearing held on 12.6.2008.

(iv) Apart from above 32 operating CPSEs, there is one non-manufacturing holding company i.e. BBUNL.

Annexure IX

Export Performance of CPSEs under DHI

(Rs. in crore)

Sl.No.	PSEs	2004-05 (Actual)			2005-06 (Actual)			2006-07 (Actual)			2007-08 (Actual)			2008-09 (Anticpated)		
		Physical	Deemed	Total	Physical	Deemed	Total	Physical	Deemed	Total	Physical	Deemed	Total	Physical	Deemed	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.	AY&CO	1.25	2.65	**3.90**	0.80	0.00	**0.80**	1.64	0.00	**1.64**	0.05	0.00	**0.05**	3.10		**3.10**
2.	BHEL	829.00	1298.00	**2127.00**	745.00	3021.00	**3766.00**	1076.00	5525.00	**6601.00**	980.00	3660.00	**4640.00**	1794.00	6346.00	**8140.00**
3.	BCL	0.00	0.00	**0.00**	4.98	0.00	**4.98**	0.68	0.00	**0.68**	0.00	0.00	**0.00**	0.00	0.00	**0.00**
4.	BSCL	4.71	0.00	**4.71**	2.75	0.00	**2.75**	8.48	0.00	**8.48**	7.70	0.00	**7.70**	9.97	0.00	**9.97**
5.	BHPV	1.21	0.45	**1.66**	2.92	0.45	**3.37**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**
6.	BPCL	0.00	7.03	**7.03**	0.00	4.07	**4.07**	0.00	6.81	**6.81**	0.00	0.63	**0.63**	0.00	0.15	**0.15**
7.	R&C	0.83	0.00	**0.83**	1.17	0.00	**1.17**	0.00	6.81	**6.81**	0.00	0.63	**0.63**	0.00	0.00	**0.00**
8.	B&R	2.85	0.00	**2.85**	1.95	0.00	**1.95**	2.23	0.00	**2.23**	0.52	0.00	**0.52**	11.04	0.00	**11.04**
9.	HMT(I)	28.17	0.00	**28.17**	14.89	0.00	**14.89**	31.45	0.00	**31.45**	25.00	0.00	**25.00**	16.25	0.00	**16.25**
10.	IL	0.47	5.32	**5.79**	0.23	9.01	**9.24**	0.21	7.74	**7.95**	0.13	0.29	**0.42**	1.01	9.80	**10.81**
11.	REIL	13.36	0.00	**13.36**	1.09	0.00	**1.09**	4.05	1.27	**5.32**	7.73	0.00	**7.73**	0.79	1.99	**2.78**
12.	SIL	1.05	0.00	**1.05**	0.63	0.00	**0.63**	0.41	0.00	**0.41**	0.87	0.00	**0.87**	0.88	0.00	**0.88**
13.	HPC	0.00	48.38	**48.38**	0.00	43.37	**43.37**	0.00	40.76	**40.76**	0.00	15.94	**15.94**	0.00	34.52	**34.52**
14.	HSL	0.41	0.00	**0.41**	0.39	0.00	**0.39**	0.56	0.00	**0.56**	0.64	0.00	**0.64**	0.79	0	**0.79**
15.	EPI	0.00	0.00	**0.00**	0.00	0.00	**0.00**	0.00	0.00	**0.00**	25.43	0.00	**25.43**	6.00	0.00	**6.00**
	Total	**883.31**	**1361.83**	**2245.14**	**776.80**	**3077.90**	**3854.70**	**1125.71**	**5588.39**	**6714.10**	**1022.64**	**3677.49**	**4700.13**	**1843.83**	**6392.46**	**8236.29**

Note: (i) 13 CPSEs namely, BPME, WIL,BBVL, TAFCO,CCIL, BLC, NBCIL, MAMC, NIDC, BOGL, RIC & BYNL have been closed and one CPSE (NPPC) is not in operation).
(ii) BWEL has been transferred to Ministry of Railways on 13.8.2008. NIL has also been transferred to Jadavpur University, Kolkata on 7.1.2009.
(iii) The merger scheme of PTL with HM(MT) Ltd. has been appproved by BIFR in the hearing held on 12.6.2008.
(iv) Apart from above 32 operating CPSEs, there is one non-manufacturing holding company i.e. BBUNL.

Annexure X

Paid-up Capital, Networth and Accumulated Profit (+)/Loss(-) as on 31.3.2009 (Provisional) of the CPSEs under DHI

(Rs. in crore)

Sl. No.	Name of CPSE	Paid-up Capital		Networth	Accumulated Profit (+)/Loss (-)
		Government/ Holding CPSE	Others		
1	2	3	4	5	6
1	AYCL	57.46	5.81	-7.38	179.10
2	HOOGHLY PTG	1.03		2.91	0.23
3	BHEL	331.51	158.01	12939.00	12449.00
4	BSCL	133.01		-1523.68	-1656.69
5	BCL	19.79		9.98	-9.82
6	BBJ	20.27		18.07	-2.20
7	BHPV	33.80		-229.94	-263.76
8	BPCL	53.53		98.61	23.76
9	R&C	55.00		-263.00	-318.00
10	TSL	21.27		-504.90	-526.17
11	TSP	6.69	1.75	-260.15	-268.58
12	B&R	54.63	0.36	112.94	58.00
13	HCL	417.69	1.67	-2753.06	-3229.16
14	HEC	606.08		-249.97	-1066.87
15	HMT(Holding Co.)	98.88	1.12	761.76	-441.59
16	HMT(Machine Tools)	742.31		17.76	-738.00
17	HMT(Watches)	6.49		-1127.34	-1133.83
18	HMT(Chinar Watches)	1.66		-292.00	-294.09
19	HMT(Bearing)	37.47	0.24	-27.93	-65.64
20	HMT(International)	0.72		22.92	22.20
21	IL	92.31	1.01	13.50	-55.31
22	REIL	2.08	2.17	19.31	14.04
23	SIL	41.01	1.99	-2.92	-56.49
24	**CCI**	811.41		-273.62	-1068.11
25	HPC	670.38		905.45	148.47
26	HNL	100.00		236.20	141.21
27	HPF	184.68	19.19	-5808.85	-6035.53
28	HSL	22.55		20.49	-12.44
29	SSL	1.00		-1.39	-13.84
30	NEPA	108.86	0.69	-359.74	-468.60
31	TCIL	93.45		-143.93	-262.46
32	EPIL	35.42		121.18	79.84
	TOTAL	**4862.44**	**194.01**	**1470.28**	**-5229.53**

Note: (i) 13 CPSEs namely, BPME, WIL,BBVL, TAFCO,CCIL, BLC, NBCIL, MAMC, NIDC, BOGL, RIC & BYNL have been closed and one CPSE (NPPC) is not in operation).

(ii) BWEL has been transferred to Ministry of Railways on 13.8.2008. NIL has also been transferred to Jadavpur University, Kolkata on 7.1.2009.

(iii) The merger scheme of PTL with HM(MT) Ltd. has been appproved by BIFR in the hearing held on 12.6.2008.

(iv) Apart from above 32 operating CPSEs, there is one non-manufacturing holding company i.e. BBUNL.

Annexure XI

Inputs sanctioned by the Govt. for revival/ restructuring of CPSEs under DHI

As on 31.3.2009

(Rs. crore)

S. No.	CPSE	Fresh GOI funds		Waivers/ conversions	GOI guarantee	Total
		Capital Investment	Other			
1.	Hindustan Salts Ltd., Jaipur	4.28	nil	66.32	nil	70.60
2.	Bridge & Roof Co.Ltd., Kolkata	60.00	nil	42.92	nil	102.92
3.	BBJ Constn. Co Ltd, Kolkata	nil	nil	54.61	nil	54.61
4.	Praga Tools Ltd, Secunderabad (AP)	5.00	nil	177.12	32.59	214.71
5.	Heavy Engg Corp, Ranchi	102.00	nil	1116.30	150.00	1368.30
6.	HMT (Bearings) Ltd, Hyderabad.	7.40	nil	26.57	17.40	51.37
7.	Braithwaite & Co Ltd., Kolkata	4.00	nil	112.91	nil	116.91
8.	Cement Corpn of India Ltd., New Delhi	30.67	153.62	1252.25	15.70	1452.24
9.	Bharat Pumps & Compressors Ltd., Allahabad	nil	3.37	153.15	nil	156.52
10.	HMT (MT) Ltd.	180.00	543.00	157.80	--	880.80
11.	Andrew Yule & Co Ltd	29.56	87.06	154.75	111.96	383.33
12.	National Instruments Ltd.	--	1.81	240.05	--	241.86
13.	Nagaland Pulp & Paper Co Ltd*	251.26	38.19	126.98	252.99	669.42
14.	Tyre Corporation of India Ltd.	--	--	815.59	--	815.59
15.	Instrumentation Limited	--	--	504.36	45.00	549.36
	TOTAL	**674.17**	**823.68**	**5001.68**	**629.01**	**7128.54**

* Rs.108.18 crore for setting off the Capital reduction fund on account of reduction of existing paid up capital from Rs.120.20 crore to Rs.12.02 by way of reduction of the face value of the share from Rs.1000 per share to Rs.100 per share.

Annexure XII

Important Audit observations from Comptroller & Auditor General Audit Report for 2008-09

Bharat Heavy Electricals Limited

The company took an unwarranted risk and dispatched 95 per cent of the material on verbal assurance which resulted in non-realization of an amount of Rs. 4.22 crore from the customer of more than six years.

(Para No. 11.1.1. of Report No. 11 of 2008 (C.A.) Commercial)

The company did not place purchase order as per delivery terms offered by a vendor for procurement of Molybdenum-Oxide resulting in extra expenditure of Rs. 2.21 crore. **(Para No. 11.1.2 of Report No. 11 of 2008 (C.A.) Commercial)**

Failure to place purchase orders within validity period resulted in extra- expenditure of Rs. 1.34 crore.

(Para No. 11.1.3 of Report No. 11 of 2008 (C.A.) Commercial)

Heavy Engineering Corporation Limited

The company suffered a loss of Rs. 4.12 crore on account of liquidated damages as the company failed to adhere to the delivery schedule in supplying Electric-Rope Shovels. **(Para No. 11.2.1 of Report No. 1 of 2008 (C.A.) Commercial)**

Report of C.A. 2 of 2008; Union Government (Civil) Compliance Audit of Autonomous Bodies.

Utilization Certificate

Consequent on the departmentalization on accounts in 2976, certificates of utilisaion of grants were required to be furnished by the Ministries/Departments concerned to the Controllers of Accounts in respect of grants released to statutory bodies non-government organization etc. to ensure that the grants had been properly utilized for the purpose for which these were sanctioned. As per records, 49 UCs for 279.14 crore are outstanding in respect of Department of Heavy Industry.

(Para No. 1.3 of Report 11 of 2008 (C.A.) Civil)

Hindustan Paper Corporation Limited

Production performance of the paper mills and marketing of paper-(Chapter IV of Report No. PA 9 of 2008)

Highlights:

Against the installed capacity of 200000 MT, the production during 2002-03 and 2006-07 ranged between 1.97 lakh MRT and 2.10 lakh MT indicating capacity utilization between 98.7 percent and 105 per cent. The Company achieved the installed capacity when it produced higher gram per square meter (GSM) paper. ***(Paras 4.7.1 and 4.7.2)***

Excess downtime led to loss of production of 1,58,561 MT. Controllable factors like mechanical maintenance paper breaks, spool jamming and shortage of pulp were responsible for the maximum downtime during 2002-03 to 2006-07. ***(para 4.7.3)***

Despite encouraging results and adoption of alkaline sizing by its competitors, the Company did not switch over to alkaline sizing from acid sizing ***(para 4.7.4.1)***

Excess consumption of raw material and other inputs over the norms fixed by the Company also led to loss of contribution amounting to Rs. 53.30 crore during the period under review. ***(para 4.7.5)***

Constraints existed in procurement of basic inputs ***(para 4.7.6)***

The Company's market share declined over the years from 12.7 per cent in 2004-05 to 9.8 percent in 2006-07. Though the Industry expanded at a compounded annual growth rate (CAGR) of 5.5 per cent in the five years upto 2006-07, the Company's sales remained between 1.80 lakh MT and 2 lakh MT. ***(Paras 4.7.2 and 4.7.7.1)***

The Company could not achieve the overall target of sales during 2004-05 to 2006-07. ***(para 4.7.7.2)***

Marketing efforts were not adequate and were not supplemented with better market intelligence and there was no mechanism for assessing the performance of Sales Depots. ***(paras 4.7.7.3 and 4.7.7.5)***

Non-liquidation of stock was partly because of the Company's failure to correctly assess demand and its inability to capture an appropriate segment of the market. Consequently the Company was compelled to declare special discounts of upto 27 per cent in 2005-06 and 2006-07 to dispose the accumulated stock. ***(para 4.7.7.5)***

The Company could not comply with environmental requirements as stipulated in the Corporate Responsibility for Environmental Protection (CREP) guidelines. ***(para 4.7.8)***

(Observations as received from the Ministry of Finance vide their O.M. No. 1(20)/E-Coord/2008 dated 18th December, 2008) forwarded by Budget and Accounts vide their I.D. No. G-25015(4)/2009-B&A dated 17/6/2009

Abbreviations

AAIFR	Appellate Authority of Industrial & Financial Reconstruction
ACMA	Automotive Component Manufacturers Association
ARAI	Automotive Research Association of India
AYCL	Andrew Yule & Company
BBJ	Braithwaite, Burn & Jessop Construction Company Limited
BBUNL	Bharat Bhari Udyog Nigam Limited
BHEL	Bharat Heavy Electricals Limited
BHPV	Bharat Heavy Plate & Vessels Limited
BIFR	Board of Industrial & Finance Reconstruction
BLC	Bharat Leather Corporation Limited
BOGL	Bharat Ophthalmic Glass Limited
BPCL	Bharat Pumps & Compressors Limited
BPME	Bharat Process & Mechanical Engineers Limited
BCL	Braithwaite & Company Limited
BWEL	Bharat Wagon & Engineering Company Limited
BYNL	Bharat Yantra Nigam Limited
BRPSE	Board for Reconstruction of Public Sector Enterprises
C-DOT	Centre for Development of Telematics
CCI	Cement Corporation of India Limited
CCIL	Cycle Corporation of India Limited
CEA	Central Electricity Authority
CCEA	Cabinet Committee on Economic Affairs
CNC	Computer Numerically Controlled
CPSE	Central Public Sector Enterprise
CPIO	Central Public Information Officer
CPLY	Corresponding Period Last Year
DOE	Department of Electronics
EEC	European Economic Community
EFV	Environmentally Friendly Vehicle
EOT	Electrically Operated Trolley
EPC	Engineering Procurement and Construction
EPI	Engineering Projects (India) Limited
EEPC	Engineering Export Promotion Council
FBP	Fluidized Bed Combustion
FCRI	Fluid Control Research Institute
FFP	Foundry Forge Plant
HCL	Hindustan Cables Limited
HMBP	Heavy Machine Building Plant
HMT(I)	HMT (International) Limited
HMTP	Heavy Machine Tools Plant
HPC	Hindustan Paper Corporation Limited
HNL	Hindustan Newsprint Limited
HPF	Hindustan Photo Films Manufacturing Company Limited
HSL	Hindustan Salts Limited
IL	Instrumentation Limited
ISRO	Indian Space Research Organization
ICGCC	Integrated Coal Gasification Combined Cycle

JPML	Jagdishpur Paper Mills Limited
JVC	Joint Venture Company
JESSOP	Jessop Company Limited
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
KV	Kilo Volt
KW	Kilo Watt
LAGAN JUTE	Lagan Jute Machinery Company Limited
OA	Operating Agency
MAMC	Mining & Allied Machinery Corporation Limited
MAX	Main Automatic Exchange
MoU	Memorandum of Understanding
MoHI&PE	Minister of Heavy Industries & Public Enterprises
MOEF	Ministry of Environment & Forests
MoPNG	Ministry of Petroleum & Natural Gas
MoSRT&H	Ministry of Shipping, Road Transport & Highways
MT	Metric Tonne
MUL	Maruti Udyog Limited
MVA	Mega Volt Amperes
MW	Mega Watt
NBCIL	National Bicycle Corporation of India Limited
NC	Numerically Controlled
NEPA	NEPA Limited
NPCIL	Nuclear Power Corporation of India Limited
NIDC	National Industrial Development Corporation Limited
NATRIP	National Automotive Testing and Research & Development Infrastructure Project
PSE	Public Sector Enterprise
PWD	Persons With Disabilities
PTL	Praga Tools Limited
R&C	Richardson & Cruddas (1972) Limited
RDSO	Research Design & Standard Organization
RIC	Rehabilitation Industries Corporation Limited
RSW	Radiation Shielding Window
RTI	Right to Information Act
SIAM	Society of Indian Automobile Manufacturers
SIL	Scooters India Limited
SIAT	Symposium on International Automotive Technology
SSL	Sambhar Salts Limited
TAFCO	Tannery & Footwear Corporation of India Limited
TCIL	Tyre Corporation of India Limited
TSL	Triveni Structural Limited
TSP	Tungabhadra Steel Products Limited
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organizations
VRS	Voluntary Retirement Scheme
VRDE	Vehicle Research Development Establishment
WIL	Weighbird (India) Limited.
WP	Working Party

Department of Public Enterprises

Chapter 1

Public Enterprises Survey

1.1 The Department of Public Enterprises (DPE) presents to Parliament every year a comprehensive report on the financial and physical performance of Central Public Sector Enterprises (CPSEs) in the country known as the Public Enterprises Survey.

1.2 This is in compliance with the recommendations of the Estimates Committee, which suggested in their 73rd Report (1959-60) that in addition to the individual annual report of each enterprise laid on the Table of both the Houses of Parliament, a separate (comprehensive) report should be submitted to the Parliament indicating Government's total appraisal of the working of public enterprises. Accordingly, the first "Annual Report" (Public Enterprises Survey) was prepared by the erstwhile Bureau of Public Enterprises (now DPE) in 1960-61.

1.3 The Public Enterprises Survey covers the Central Public Sector Enterprises (CPSEs) established either as Government Companies under the Companies Act or as Statutory Corporations under specific statutes of Parliament. The Survey, moreover, covers only those Government Companies in which Central Government's share in paid up capital is more than fifty per cent including the subsidiaries of such companies. This does not, however, include public sector commercial banks.

1.4 The Committee on Public Undertakings (COPU) in their recommendations made in the 46th Report (5th Lok Sabha) had covered various aspects, such as scope, coverage, classification of undertakings, contents of the report, time for presentation and other matters relating to the Public Enterprises Survey. These recommendations of COPU are also taken into account while preparing the Public Enterprises Survey.

1.5 The basic data for the Survey is compiled from the Annual Reports of the various CPSEs and the information provided directly by CPSEs to this department. The data is compiled, analysed and presented by way of a report in three separate volumes.

1.5.1 Volume-1 of the Public Enterprises Survey contains a macro analysis of the performance of CPSEs in terms of broad physical and financial parameters. Various chapters in this Volume reflect the key activities and the progress made during the year. It also covers aspects, such as, price policy, productivity, R&D, international operations, human resource development and welfare measures.

1.5.2 Volume-2 contains an analysis of the performance of CPSEs of individual enterprises, relating to business activities, operational profile, major financial highlights and strategic issues.

1.5.3 Volume-3 contains enterprise-wise analytical data for the last three years. This information consists of summarized balance sheet, profit and loss account and important management ratios.

1.6 The Public Enterprise Survey (2007-08), is the 48th report on the overall performance of CPSEs which *was laid in both the Houses of Parliament on 25.2.2009.*

1.7 Performance of CPSEs during the year 2007-08 may be summarized as mentioned below:

1.7.1 There were 242 Central Public Sector Enterprises (CPSEs) under the administrative control of various Ministries / Departments as on 31.3.2008. Out these 242 CPSEs, 214 have been in operation and 28 CPSEs have yet to commence business.

1.7.2 Out of 214 operating CPSEs from which information has been received, while 160 CPSEs have shown profit during 2007-08, 53 CPSEs incurred losses during the year. In case of one CPSE, namely, Food Corporation of India (FCI), the Profit / Loss is 'NIL' as the procurement and issue price of food grains is fixed by the Government of India and the difference between the economic cost and price realization is reimbursed by the Government as subsidy.

1.7.3 The cumulative investment (paid up capital plus long terms loans), which was Rs. 29 crore in 5 enterprises as on 31.3.1951, has gone up to Rs. 4,55,409 crore in 242 CPSEs as on 31.3.2008. While the increase in 'investment' in all the CPSEs went up by 8.31% in 2007-08 over 2006-07, the increase in 'capital employed' went up by 15.61% during the same period **(Table 1).** A great deal of investment in CPSEs is being made through internal resources, that is, without any budgetary support.

1.7.4 The 'net profit' of profit making CPSEs (160) was Rs. 91,083 crore in 2007-08. The 'net loss' of loss making enterprises (53) stood at Rs. 11274 crore during the year; this includes accounting losses of closed units like Fertilizer Corporation of India (Rs.1505 crore), Hindustan Fertilizer Corporation (Rs.1102 crore) and losses (Rs.2226 crore) on account of formation of a new company namely National Aviation Company of India Ltd. (by merging Air India Ltd. and Indian Airlines Ltd.).

1.7.5 The CPSEs have to serve macro-economic objectives besides financial objective. The Food Corporation of India (FCI) and Artificial Limbs Manufacturing Corporation of India (ALIMCO) etc. are CPSEs that have been laying greater emphasis on non-financial / social objectives. The year was also witness to severe financial under-recoveries by public sector Oil Marketing Companies (OMCs) on sale of petroleum products in order to keep the prices low in the domestic market.

The major highlights of the performance of CPSEs during 2007-08 are given below:

Table : Performance of CPSEs during 2007-08

(Rs. in Crore)

Sl. No.	Particulars	2007-08	2006-07	% change over previous year
1.	Investment (long term loan + equity)	455409	420476	8.31
2.	Capital employed(net fixed assets + working capital)	763127	650959	17.23
3.	Total turnover	1081925	963917	12.24
4.	Profit of Profit Making CPSEs	91083	89578	1.68
5.	Loss of Loss Making CPSEs	11274*	8457	(33.31)
6.	Net worth	518417	452753	14.50
7.	Dividend declared	28081	26819	4.71
8.	Corporate tax	40671	32328	25.81
9.	Interest paid	32240	27455	17.43
10.	Contribution to Central Exchequer	165994	148789	11.56
11.	Foreign Exchange Earnings	74283	70906	4.76
	11.1 Oil companies	47203	43777	7.83
	11.2 Other companies	27080	27129	(0.18)
12.	Foreign Exchange Outgo	368196	316161	16.46
	12.1 Oil companies	278992	241736	15.41
	12.2 Other companies	89204	74425	19.86

* Loss of loss making CPSEs increased mainly on account of loss incurred by NACIL (Rs.2226 crore) during 2007-08 as compared to Rs.688 crore loss incurred by Air India and Indian Airlines (put together) during 2006-07.

Chapter 2

Autonomy to CPSEs

2.1 The endeavour of the Government is to make public sector enterprises autonomous board managed companies. Under Articles of Association, the Board of Directors of CPSEs enjoy autonomy in respect of recruitment, promotion and other service conditions of below Board level employees. The Board of Directors of a CPSE exercises delegated powers subject to broad policy guidelines issued by Government from time to time. The Government has granted enhanced powers to the Boards of the profit making enterprises under various schemes like Navratna and Miniratna.

2.1.1 Keeping in view the pledge made in the National Common Minimum Programme (NCMP) that full managerial and commercial autonomy will be devolved to successful profit making companies operating in a competitive environment, the Government has reviewed the powers delegated to the Board of Directors of Navratna, Miniratna and other profit making CPSEs and enhanced the powers in the manner stated in the following paragraphs.

2.2 NAVRATNA CPSEs

2.2.1 Under this scheme, the Government has delegated enhanced powers to CPSEs having comparative advantage and the potential to become global players. During the year 2008, the Navratna status has been granted to 6 more CPSEs and presently, there are 18 Navratna CPSEs as under:

- Bharat Electronics Limited
- Bharat Heavy Electricals Limited
- Bharat Petroleum Corporation Limited
- Coal India Limited
- GAIL (India) Limited
- Hindustan Aeronautics Limited
- Hindustan Petroleum Corporation Limited
- Indian Oil Corporation Limited
- Mahanagar Telephone Nigam Limited
- National Aluminium Company Limited
- NMDC Limited
- NTPC Limited
- Oil & Natural Gas Corporation Limited
- Power Finance Corporation Limited
- Power Grid Corporation of India Limited
- Rural Electrification Corporation Limited
- Shipping Corporation of India Limited
- Steel Authority of India Limited

2.2.2 The powers presently delegated to the Boards of Navratna CPSEs are as under:

(i) **Capital Expenditure:** The Navratna CPSEs have the powers to incur capital expenditure on purchase of new items or for replacement, without any monetary ceiling.

(ii) **Technology Joint Ventures and Strategic Alliances:** The Navratna CPSEs have the powers to enter into technology joint ventures or strategic alliances and obtain by purchase or other arrangements, technology and know-how.

(iii) **Organization Restructuring:** The Navratna CPSEs have the powers to effect

organizational restructuring including establishment of profit centers, opening of offices in India and abroad, creating new activity centers, etc.

(iv) **Human Resources Management:-** The Navratna CPSEs have been empowered to creation and wind up all posts up to non-Board level Directors and made all appointments up to this level. The Boards of these CPSEs have further been empowered to effect internal transfers and re-designation of posts. The Board of Directors of Navratna CPSEs have the power to further delegate the powers relating to Human Resource Management (appointments, transfer, posting, etc.) of below Board level executives to sub-committees of the Board or to executives of the CPSE, as may be decided by the Board of the CPSE.

(v) **Resource Mobilization:** - These CPSEs have been empowered to raise debt from the domestic capital markets and for borrowings from international market, subject to condition that approval of RBI/ Department of Economic Affairs, as may be required, should be obtained through the administrative Ministry.

(vi) **Joint ventures and Subsidiaries :-** The Navratna CPSEs have been delegated powers to establish financial joint ventures and wholly owned subsidiaries in India or abroad with the stipulation that the equity investment of the CPSE should be limited to the following: -

- Rs. 1000 crore in any one project,
- 15% of the net worth of the CPSE in one project,
- 30% of the net worth of the CPSE in all joint ventures/ subsidiaries put together.

(vii) **Mergers and acquisitions:-** The Navratna CPSEs have been delegated powers for mergers and acquisitions subject to the conditions that (i) it should be as per the growth plan and in the core area of functioning of the CPSE, (ii) conditions/limits would be as in the case of establishing joint ventures/subsidiaries, and (iii) the Cabinet Committee on Economic Affairs would be kept informed in case of investments abroad. Further, the powers relating to Mergers and Acquisitions are to be exercised in such a manner that it should not lead to any change in the public sector character of the concerned CPSEs.

(viii) **Creation/Disinvestment in subsidiaries:** The Navratna CPSEs have powers to transfer assets, float fresh equity and divest shareholding in subsidiaries subject to the condition that the delegation will be in respect of subsidiaries set up by the holding company under the powers delegated to the Navratna CPSEs and further to the proviso that the public sector character of the concerned CPSE (including subsidiary) would not be changed without prior approval of the Government and such Navratna CPSEs will be required to seek Government approval before exiting from their subsidiaries.

(ix) **Tours abroad of functional Directors:-** The Chief Executive of Navratna CPSEs have been delegated powers to approve business tours abroad of functional directors up to 5 days' duration (other than study tours, seminars, etc.) in emergency under intimation to the Secretary of the administrative Ministry.

2.2.3 The above mentioned delegation of powers is subject to the following conditions and guidelines:-

- The proposals must be presented to the Board of Directors in writing and reasonably well in advance, with an analysis of relevant factors and quantification of the anticipated results and benefits. Risk factors if any must be clearly brought out.

- The Government Directors, the Financial Directors and the concerned Functional Director(s) must be present when major decisions are taken, especially when they pertain to investments, expenditure or organizational/ capital restructuring.
- The decisions on such proposals should preferably be unanimous.
- In the event of any decision on important matters not being unanimous, a majority decision may be taken, but at least two thirds of the Directors should be present, including those mentioned above, when such a decision is taken. The objections, dissents, the reasons for over-ruling them and those for taking the decision should be recorded in writing and minuted.
- No financial support or contingent liability on the part of the Government should be involved.
- These CPSEs will establish transparent and effective systems of internal monitoring, including the establishment of an Audit Committee of the Board with membership of non-official Directors.
- All the proposals, where they pertain to capital expenditure, investment or other matters involving substantial financial or managerial commitments or where they would have a long term impact on the structure and functioning of the CPSE, should be prepared by or with the assistance of professionals and experts and should be appraised, in suitable cases, by financial institutions or reputed professional organizations with expertise in the areas. The financial appraisal should also preferably be backed by an involvement of the appraising institutions through loans or equity participation.
- The exercise of authority to enter into technology joint ventures and strategic alliances shall be in accordance with the Government guidelines as may be issued from time to time.
- The Boards of these CPSEs should be restructured by inducting at least four non-official Directors as the first step before the exercise of the enhanced delegation of authority.
- These public sector enterprises shall not depend upon budgetary support or Government guarantees. The resources for implementing their programmes should come from their internal resources or through other sources, including the capital markets. However, wherever Government guarantee is required under the standard stipulations of external donor agencies, the same may be obtained from the Ministry of Finance through the administrative Ministry. Such Government guarantee shall not affect the Navratna status. Further, budgetary support to implement Government sponsored projects of national interest and Government sponsored Research & Development projects will not disqualify CPSEs from retaining their Navratna status. However, for such projects, investment decisions will be taken by the Government and not by the CPSE concerned.

2.2.4 The Apex Committee in their meeting held on 11.7.2008 recommended grant of Navratna status to Shipping Corporation of India Limited. The Apex Committee also recommended grant of Navratna status to Container Corporation of India Limited, Coal India Limited, Oil India Limited subject to certain conditions. Coal India Limited has since been granted Navratna status.

2.2.5 The Apex Committee took note of the performance of Navratna CPSEs during their meeting held on 11.7.2008 on the basis of reviews done by the IMC.

2.3 MINIRATNA SCHEME

2.3.1 In October 1997, the Government had also decided to grant enhanced autonomy and delegation of financial powers to some other profit making companies subject to certain eligibility conditions and guidelines to make

them efficient and competitive. These companies, called Miniratnas, are in two categories, namely, Category- I and Category-II. The eligibility conditions and criteria are:

- **Category-I** CPSEs should have made profit in the last three years continuously, the pre-tax profit should have been Rs.30 crores or more in at least one of the three years and should have a positive net worth.
- **Category-II** CPSEs should have made profit for the last three years continuously and should have a positive net worth.
- These CPSEs shall be eligible for the enhanced delegated powers provided they have not defaulted in the repayment of loans/interest payment on any loans due to the Government.
- These public sector enterprises shall not depend upon budgetary support or Government guarantees.
- The Boards of these CPSEs should be restructured by inducting at least three non-official Directors as the first step before the exercise of enhanced delegation of authority.
- The administrative Ministry concerned shall decide whether a Public Sector Enterprise fulfilled the requirements of a Category-I/Category-II company before the exercise of enhanced powers.

2.3.2 The delegation of decision-making authority available at present to the Boards of these Miniratna CPSEs is as follows:

(i) **Capital Expenditure**

For CPSEs in category I: The power to incur capital expenditure on new projects, modernization, purchase of equipment, etc., without Government approval upto Rs. 500 crore or equal to net worth, whichever is less.

For CPSEs in category II: The power to incur capital expenditure on new projects, modernization, purchase of equipment, etc., without Government approval upto Rs. 250 crore or equal to 50% of the Net worth, whichever is less.

(ii) **Joint ventures and subsidiaries:**

(a) **Category I CPSEs: To** establish joint ventures and subsidiaries in India with the stipulation that the equity investment of the CPSE in any one project should be limited to 15% of the networth of the CPSE or Rs. 500 crore, whichever is less. The overall ceiling on such investment in all projects put together is 30% of the networth of the CPSE.

(b) **Category II CPSEs:** To establish joint ventures and subsidiaries in India with the stipulation that the equity investment of the CPSE in any one project should be 15% of the networth of the CPSE or Rs. 250 crore, whichever is less. The overall ceiling on such investment in all projects put together is 30% of the networth of the CPSE.

(iii) **Mergers and acquisitions:-** The Board of Directors of these CPSEs have the powers for mergers and acquisitions, subject to the conditions that (a) it should be as per the growth plan and in the core area of functioning of the CPSE, (b) conditions/limits would be as in the case of establishing joint ventures/subsidiaries, and (c) the Cabinet Committee on Economic Affairs would be kept informed in case of investments abroad. Further, the powers relating to Mergers and Acquisitions are to be exercised in such a manner that it should not lead to any change in the public sector character of the concerned CPSEs.

(iv) **Scheme for HRD:-** To structure and implement schemes relating to personnel and human resource management, training, voluntary or compulsory retirement schemes, etc. The Board of Directors of these CPSEs have the power to further delegate the powers relating to Human Resource Management (appointments, transfer, posting, etc.) of

below Board level executives to sub-committees of the Board or to executives of the CPSE, as may be decided by the Board of the CPSE.

(v) **Tour abroad of functional Directors:** - The Chief Executive of these CPSEs have the power to approve business tours abroad of functional directors up to 5 days' duration (other than study tours, seminars, etc.) in emergency, under intimation to the Secretary of the administrative Ministry.

(vi) **Technology Joint Ventures and Strategic Alliances:-** To enter into technology joint ventures, strategic alliances and to obtain technology and know-how by purchase or other arrangements, subject to Government guidelines as may be issued from time to time.

(vii) **Creation / Disinvestment in subsidiaries:** - To transfer assets, float fresh equity and divest shareholding in subsidiaries subject to the condition that the delegation will be in respect of subsidiaries set up by the holding company under the powers delegated to the Miniratna CPSEs and further to the proviso that the public sector character of the concerned CPSE (including subsidiary) would not be changed without prior approval of the Government, and such Miniratna CPSEs will be required to seek Government approval before exiting from their subsidiaries.

2.3.3 The above delegation of powers is subject to similar conditions as are applicable to Navratna CPSEs.

2.3.4 The Inter-Ministerial Committee (IMC) reviewed the performance of 5 Miniratna CPSEs (Bharat Dynamic Limited, Engineering Projects India Limited, Housing & Urban Development Corporation Limited, Neyveli Lignite Corporation Limited and WAPCOS Limited) during the year 2008 (upto March, 2009).

2.4 OTHER PROFIT MAKING CPSEs

2.4.1 Those CPSEs which have shown a profit in each of the 3 preceding accounting years and have a positive net worth are categorized as 'other profit making CPSEs'. These CPSEs have been delegated enhanced powers as under:-

(i) **Capital Expenditure:-** These CPSEs have the power to incur capital expenditure up to Rs. 150 crore or equal to 50% of the Net worth, whichever is less. The above delegation is subject to the following conditions:

(a) inclusion of the project in the approved Five Year and Annual Plans and outlays provided for;

(b) the required funds can be found from the internal resources of the company and extra budgetary resources (EIBR) and the expenditure is incurred on schemes included in the capital budget approved by the Government.

(ii) **Tours abroad of functional Directors:-** The Chief Executive of these CPSEs have the power to approve business tours abroad of functional directors up to 5 days' duration (other than study tours, seminars, etc.) in emergency, under intimation to the Secretary of the administrative Ministry. In all other cases including those of Chief Executive, tours abroad would continue to require the prior approval of the Minister of the Administrative Ministry/ Department.

2.5 Professionalization of Boards of CPSEs

2.5.1 Department of Public Enterprises (DPE) formulates policy guidelines on the Board structure of CPSEs. In pursuance of the public sector policy being followed since 1991 several measures have been taken by the Department of Public Enterprises to professionalize the Boards of public enterprises. The guidelines issued in 1992 provide that outside professionals should be inducted on the Boards of CPSEs in the form of part-time non-official Directors and that the number of such Directors

should be at least 1/3rd of the actual strength of the Board. In the case of listed CPSEs headed by executive Chairman, the number of non-official Directors (Independent Directors) should be at least half the strength of the Board. The guidelines also provide that the number of Government Directors on the Boards should be not more than one-sixth of the actual strength of the Board subject to a maximum of two. Apart from this, there should be some functional Directors on each Board whose number should not exceed 50% of the actual strength of the Board.

2.5.2 As regards selection and appointment of non-official Directors on the Boards of CPSE, the following eligibility criteria is being adopted:-

- Age: - Age band should be between 45-65 years (minimum/maximum limit). This could however be relaxed for eminent professionals for reasons to be recorded, being limited to 70 years.
- Qualification: - Minimum qualification for part time non official Directors would be graduate degree from a recognized university.
- Experience:- Persons of eminence with proven track record from industry, business or agriculture. CMD/MD in corporate sector/PSE; Professor level in an academic institution or professionals of repute like eminent Chartered Accountants/Cost Accountants at the level of Directors of Institutes/Heads of Department; persons having experience of not less than 10 years at the level of Joint Secretary and above in the Government.

2.5.3 The proposals for appointment of non-official Directors are initiated by the concerned Administrative Ministries/Departments. In so far as Navratna and Miniratna CPSEs are concerned, the selection of non-official Directors is made by the Search Committee consisting of Chairman (PESB), Secretary (DPE), Secretary of the administrative Ministry/ Department of the CPSE, Chief Executive of the concerned CPSE and non-official Members. In the case of remaining CPSEs (other than Navratna/Miniratna CPSEs), Public Enterprises Selection Board (PESB) makes the selection of non-official Directors. The concerned Administrative Ministry/Department appoints the non-official Directors on the basis of recommendations of Search Committee/PESB after obtaining the approval of competent authority, i.e. Appointments Committee of Cabinet (ACC).

2.5.4 The Navratna scheme provides that the Boards of these companies should be professionalised by inducting a minimum of 4 non-official Directors before their Boards can exercise the enhanced powers. Similarly, in the case of Miniratna CPSEs also the induction of minimum 3 non-official Directors is pre-condition for the exercise of delegated powers under the Miniratna Scheme.

2.5.5 During the period (1.1.2008 to 31.3.2009), the Search Committee and Public Enterprises Selection Board have recommended the names of about 176 persons for appointment as non-official Directors on the Boards of 77 CPSEs.

2.5.6 The functional Directors are appointed by the administrative Ministry on the recommendations of PESB and with the approval of Competent Authority. The Government Directors are appointed in ex-officio capacity and their choice vests with the concerned administrative Ministries/ Departments.

Chapter 3

Corporate Governance

3.1 The concept of Corporate Governance has generated extensive debate during the last few years due to the fast changing economic scenario all over the world. The term Corporate Governance includes the policies and procedures adopted by a corporate entity in achieving its objectives in relation to shareholders, employees, customers and suppliers, regulatory authority and the community at large. In general parlance, it means a code of corporate conduct in relation to all the stakeholders, whether internal or external. Corporate Governance implies transparency of management systems and encompasses the entire mechanics of the functioning of the company. It provides a system by which corporate entities are directed and controlled, besides attempting to put in place a system of checks and balances between the shareholders, directors, auditors and the management.

3.1.2 In India, all listed companies including listed CPSEs are covered by the SEBI guidelines. To further improve Corporate Governance standards in India, SEBI revised the code of Corporate Governance based upon the recommendations of N.R. Narayana Murthy Committee set up in 2002. Clause 49 of SEBI guidelines mandates a listed company to comply with the various provisions relating to corporate governance. The Organization for Economic Cooperation and Development (OECD), which is a forum of the Governments of 30 democracies also took initiatives to address governance issues and it suggested principles of Corporate Governance. India is not a member of OECD. In September 2005, the OECD circulated guidelines on Corporate Governance of State-owned enterprises. These guidelines cover issues like (i) ensuring an effective legal and regulatory framework for State-owned enterprises; (ii) the State acting as an owner; (iii) equitable treatment of shareholders; (iv) relations with stakeholders; (v) transparency and disclosures; and (vi) responsibilities of the Boards of State-owned enterprises.

3.1.3 The post-1991 period has witnessed significant changes in the public sector policy. The areas reserved for public sector were reduced. The Central Public Sector Enterprises (CPSEs) were expected to look for internal resources and borrowings and concentrate on improvement in operations and efficiency on commercial lines of operation aimed at earning profit.

3.1.4 In pursuance of the Industrial Policy Statement of 24.7.1991, detailed guidelines on composition of Board of Directors were issued by the Department of Public Enterprises (DPE) in March 1992. These guidelines inter-alia provided that at least one-third of the Directors on the Board of a CPSE should be non-official Directors. The Navratna and Miniratna schemes evolved by the Government in 1997 provided that these CPSEs should set up Audit Committees. Based on the SEBI guidelines, further instructions were issued by DPE in

November 2001 stating that at least half of the Board of listed CPSEs with executive Chairman should be Independent Directors.

3.1.5 The present policy of the Government towards Central Public Sector Enterprises is enunciated in the National Common Minimum Programme (NCMP). Among other things, NCMP commits (i) to devolve full managerial and commercial autonomy to successful, profit-making companies operating in a competitive environment and (ii) Public sector companies will be encouraged to enter the capital market to raise resources and offer new investment avenues to retail investors.

3.2 Formulation of Guidelines on Corporate Governance

3.2.1 The Government has enhanced the powers delegated to Navratna, Miniratna and other profit making PSEs and more CPSEs are being granted Navratna status. As a result the public accountability of the PSEs has increased. In this context, Government had approved the implementation of guidelines on corporate governance for CPSEs. These guidelines have been formulated by DPE keeping in view relevant laws, instructions and procedures. The views of various stakeholders such as administrative Ministries/ Departments, CPSEs, nodal Ministries like Company Affairs, Finance (Expenditure), Comptroller and Auditor General (C&AG), Securities and Exchange of Board of India (SEBI), Institute of Chartered Accountants of India (ICAI), Institute of Company Secretaries of India (ICSI), Institute of Cost & Works Accountants of India (ICWAI), National Foundation for Corporate Governance (NFCG), Institute of Public Enterprise, etc. were taken into account while formulating these Guidelines.

3.2.2 These guidelines are applicable to listed as well as un-listed CPSEs and cover issues like composition of Boards, Audit Committee, Subsidiary companies, disclosures, Code of conduct and ethics, risk management and compliance.

3.3 Composition of Board

3.3.1 In respect of the Board composition, these Guidelines provide that the number of functional Directors should not exceed 50% of the actual strength of Board and the number of Government nominee Directors shall be restricted to maximum of two. In case of listed CPSEs with executive chairman, the number of non-official Directors shall be at least 50% of Board members. In case of unlisted CPSEs and listed CPSEs with non-executive chairman, at least one-third of the Board Members shall be non-official Directors. The Government has also laid down pre-defined criteria in terms of educational qualifications, age and experience in respect of persons to be considered for appointment as non-official Directors. As in clause 49 of SEBI, relevant clauses have been incorporated in these guidelines to ensure 'independence' of non-official Directors and avoid potential conflict. It has also been provided that the Directors nominated by any institution other than public financial institution will not be treated as non-official Directors.

3.3.2 It has been further mandated that the Board meetings are to be held at least once in every 3 months and at least 4 such meetings in a year and all relevant information is required to be given to the Board. Further, the Board should lay down code of conduct for all members and senior management. In this regard, a model Code has been incorporated in the Guidelines to assist the CPSEs. The Guidelines inter alia provide that the Board should ensure integration and alignment of risk management system and the company should undertake suitable training programmes for its new Board members.

3.4 Audit Committee

3.4.1 The provisions relating to Audit Committee require a qualified and independent Audit Committee to be set up by CPSEs with minimum three Directors as members. Further, two-thirds of the members of this Committee

should be independent Directors with chairman to be independent Director. The Audit Committee has been given extensive powers with regard to financial matters of company and it should meet at least 4 times in a year.

3.5 Subsidiary Companies

3.5.1 With regard to subsidiary companies, it has been provided that at least one independent Director of holding company to be Director on the Board of subsidiary company and the Audit Committee of holding company to review financial statements of subsidiary. All significant transactions and arrangements of subsidiary are required to be brought to the attention of Board of Directors of holding company.

3.6 Disclosures

3.6.1 The provisions regarding disclosures require all transactions to be placed before the Audit Committee. The Guidelines mandate that while preparing financial statements, treatment should be as per prescribed Accounting Standard and if there are any deviations, the same are to be explicitly mentioned. Further, the Board is to be informed about risk assessment and minimization procedures and senior Management is to make disclosures to Board relating to all financial and commercial transactions where they have personal interest or may have a potential conflict.

3.7 Compliance

3.7.1 It has also been mandated in the Guidelines that there should be a separate section on Corporate Governance in Annual report of company with details of compliance. The CPSEs will have to obtain a certificate from auditors/company secretary regarding compliance with these Guidelines. Chairman's speech in AGM will also carry a section on compliance with Corporate Governance Guidelines and will form part of the company's Annual Report.

3.8 Implementation and Grading

3.8.1 The DPE will grade CPSEs on the basis of their compliance with Guidelines and such grading to be used for MOU Awards.

3.8.2 Keeping in view the importance of Corporate Governance to State level Public Enterprises, all States have also been advised to implement these Guidelines.

Chapter 4

MoU System in CPSEs

4.1 MOU is a mutually negotiated agreement between the management of the CPSEs and the Government of India. Under this agreement, the enterprise undertakes to achieve the targets set in the agreement at the beginning of the year.

4.2 Objectives

4.2.1 To improve the performances of public sector enterprises by increasing autonomy and accountability of the management.

4.3 Genesis of the MoU system in India

4.3.1 The system of Memorandum of Understanding (MOU) was initiated on the recommendations of the Arjun Sengupta Committee(1984) which was set up to review the policy on Central Public Sector Enterprises(CPSEs). While examining the recommendations of the Committee, the Group of Ministers in their meeting held in December, 1985 decided that performance evaluation of CPSEs should be done by the Government on the basis of Memorandum of Understanding. In accordance with this decision, four (4) Central Public Sector Enterprises (CPSEs) signed the MOUs with their respective Ministries for the year 1987-88.

4.3.2 The MOU system was given broader thrust by the Government after the announcement of the New Industrial Policy of 1991 wherein it was highlighted that more and more CPSEs should be brought under its ambit. It was mentioned in that policy statement:-

"There will be greater thrust on performance improvement through the Memorandum of Understanding (MOU) system through which managements would be granted greater autonomy and will be held accountable. Technical expertise on the part of the Government would be upgraded to make the MOU negotiations and implementation more effective."

4.3.3 In view of the above policy statement, the scope of MOU system has been extended to all CPSEs over a period of time.

4.4 NCAER study on MoU and Performance Evaluation

4.4.1 The Department of Public Enterprises assigned a study to the National Council of Applied Economic Research (NCAER) in 2003 to examine afresh the choice of criteria for performance evaluation and the allocation of weight to the different parameters. The NCAER finally came up with the following Principal Components of parameters for performance evaluation:

Principal Components of Parameters		Weight
I.	Financial (Static) Parameters	
II.	Non- financial Parameters	50%
	(i) Dynamic Parameters	30%
	(ii) Enterprise-specific Parameters	10%
	(iii) Sector-specific Parameter	10%

4.4.2 While the performance evaluation under the earlier system allocated 60% weight to 'financial parameters' and 40% weight to 'non-financial parameters', the NCAER recommended equal weights (50%) to both 'financial' and 'non-financial' parameters. In this respect it is similar to the 'balanced score card' approach of performance evaluation. The 'non-financial parameters' were further sub-divided into 'dynamic parameters', 'enterprise-specific parameters' and 'sector-specific parameters'. Whereas the 'static/ financial' parameters generally relate to profit related, size related and productivity related parameters, the 'dynamic' parameters refer to *project implementation*, *investment in R&D* and *extent of globalization* etc. Similarly, while the 'sector-specific' parameters refer to macro-economic factors like change in demand and supply, price fluctuations, variation in interest rates etc. beyond the control of the management, the 'enterprise-specific' parameters relate to issues such as safety and pollution etc.

4.4.3 Moreover, while the above mentioned *principal components* were recommended to be the same for all CPSEs, the individual items/ suggested as criteria for performance evaluation under each of these principal components were indicated to be different for different CPSEs classified as (a) 'social sector',(b) 'financial sector', (c) 'trading and consulting sector' and (d) 'other than financial trading/consulting and social sector'. Besides the above, *the new approach allowed discretion to the Task Force to change the weights* of the different criteria included under 'dynamic', 'enterprise-specific' and 'sector-specific' parameters depending on their perception of the CPSE under consideration. The recommendations of the NCAER were subsequently accepted by the Government and the new methodology for setting up performance targets came into force since financial year 2004-05.

4.5 Institutional Arrangement for Implementation of MoU Policy

4.5.1 **The High Power Committee (HPC)** is a Committee of Secretaries (COS) set up by the Government as the Apex Committee to assess the performance of MOU signing CPSEs with reference to the commitments made by them in the MOU and also to assess how far the Administrative Ministries/Departments have been able to give the necessary support as committed by them in the MOU. HPC is headed by Cabinet Secretary. Secretary, Department of Public Enterprises is the Member-Secretary of this committee. At the apex of this institutional arrangement is the High Power Committee(HPC) consisting of following members:

1. Cabinet Secretary, Chairman
2. Finance Secretary, Member
3. Secretary (Expenditure), Member
4. Secretary (Planning Commission), Member
5. Secretary (Statistics & Programme Implementation), Member
6. Secretary, Performance Management, Member
7. Chairman (Public Enterprises Selection Board), Member
8. Chairman, Tariff Commission
9. Chief Economic Adviser, Member
10. Secretary(Public Enterprises), Member-Secretary

4.6 Task Force on MoU

4.6.1 The Committee of Secretaries in its meeting held on 26th December, 1988 decided to constitute a Task Force for determining the parameters and weights and also for evaluation of performance of the CPSEs. The Members of the Task Force are ex-Civil Servants, ex-Chief Executives of CPSEs, Professionals and academicians from relevant disciplines. The Task Force is further divided into different groups called syndicate

and each of the syndicate is entrusted with the tasks relating MoU of CPSEs of a particular sector. At present, the CPSEs are distributed under the following 14 Syndicates:-

1. Petroleum-I
2. Petroleum-II
3. Energy-I
4. Energy-II
5. Industrial Sector I
6. Industrial Sector II
7. Industrial Sector III
8. Mining & Metals
9. Electronics/ Communication
10. Transport
11. Trading & Services
12. Fertilizers & Agro Industries
13. Consultancy
14. Financial

4.7 Exemption from MoU

4.7.1 In the 13th Meeting of High Power Committee (HPC) on MOU held on 09.08.1995, it was decided that henceforth Administrative Ministries/Departments with the consent of the concerned Secretary will have to take prior approval of HPC through Department of Public Enterprises, if they desire to opt out of the system in a particular year for specific reasons . This procedure will apply to all the CPSEs irrespective of whether they are profit making, loss making or sick.

4.7.2 Over the years it was noticed that a larger number of CPSEs were seeking exemptions from signing of MoU. Hence HPC had taken the following decisions with regard to the signing of MoUs:

(i) All CPSEs including sick and loss making CPSEs would sign MoU with the Ministries/ Departments concerned by 31st March every year. In case, CPSEs do not sign or delay in signing, their performance will be rated as "Poor" and the same should be reflected in the Annual Confidential Reports (ACRs) of Chief Executive of CPSE concerned. There will be no exemption of any CPSE from the MoU.

(ii) The Subsidiary Companies will sign MoUs with the Holding Companies on the same lines as MoU is signed between a CPSE and Government of India. The Task Force will finalize and evaluate the MoUs in respect of Subsidiary CPSEs also. The MoU formats will remain the same for all CPSEs including the subsidiaries.

4.8 Performance Evaluation under the MoU System

4.8.1 Performance evaluation is done on select parameters of 'profit', 'sales', etc.

4.8.2 Evaluation of MoU of the enterprises is done at the end of the year by the MoU Task Force on the basis of actual achievements vis-à-vis the MoU targets.

4.8.3 Performance evaluation is based on the" Balanced Score" approach, which includes both financial and non-financial parameters. The non-financial parameters include 'dynamic' 'sector-specific' and 'enterprise-specific' parameters.

4.8.4 The composite score is moreover worked out by taking into account the actual achievements and the weights assigned to that parameter on a 5-point scale.

4.9 Revision of Targets

4.9.1 The revision of targets is sought by some of the CPSEs on account of various reasons. While evaluating the MoU performance for the year 2004-05 and 2005-06, the Task Force noticed that a large number of CPSEs had sought downward revisions of their MoU parameters/ targets due to various factors. This was viewed as not a healthy trend as it amounted to re-fixing of targets when the achievement for the year was known. This was also viewed as against the spirit of the MoU system, which is basically an agreement between the management of the CPSE and the Department of Government of India under

which the enterprise undertakes to achieve the targets set for different parameters *at the beginning of the year.*

4.9.2 In order to discourage this un-healthy trend and to make the system of fixation of MoU targets more realistic, the Chairman and Convenors of the Task Force had recommended *that those CPSEs should not be entitled for any kind of award including 'excellence certificates' if the evaluation of its MoU performance was based on downward revision of targets.* The HPC also in its meeting dated 18.08.1989 had decided that "MoU targets and Annual Plan Targets should be the same and that they should not be changed during the course of the year". As such, once the MoUs are signed, revision of targets is not permitted.

4.10 Excellence Awards under MoU system

4.10.1 The MOU is based on the premise that to improve performance it will not suffice merely to have a system of objective Performance Evaluation. It is also necessary to reward good performance through a Performance Incentive System. This incentive system can take two forms, i.e., monetary and non-monetary. The MoU scores have implications for monetary incentive as they are rewarded for good performance through performance related payments, which in a number of cases take into account achievement against MoU targets.

4.10.2 The Jagannath Rao Committee (Second Pay Revision Committee) has recommended that, MoU performance evaluation will be the one of the basic criteria for Performance related pay, which is directly linked with the MoU performance. The Government has accepted this recommendation. The signing of MoU by the CPSEs with their parent Ministries/ Departments/ Holding Companies have been made mandatory for making them eligible for performance related pay/variable pay. The MoU rating will also form the basis of PRP with all the key result areas identified in the MoU. The PRP will be payable at 100% eligibility levels in case the CPSE achieves the MoU rating as "Excellent". In respect of "Very Good", "Good" and "Fair" MoU ratings, the eligibility levels for PRP would be 80 %, 60% and 40% respectively. If the MoU performance of a CPSE is rated as 'Poor', it will be not be eligible for PRP irrespective of the profitability of the CPSE.

4.10.3 The non-monetary incentive is in the form of MoU Award. Apart from providing an incentive for the Chief Executives of the Public Sector Enterprises towards achieving excellence in their performance, the award displays the commitment of the upper echelons of policy makers to the MoU system.

4.11 Old System of Awards (upto 2005-06)

4.11.1 Under this system, the top 10 excellent performing CPSEs were awarded with 'MoU Excellence Certificates and Trophy' and other excellent performing CPSEs were awarded with 'Merit Certificates'. The top ten CPSEs were ranked on the basis of their MoU composite score, irrespective of which sector/ syndicate they belong. MoU award was given for the first time by Government of India for the year 1987-88 and 1989-90 and, selected CPSEs were awarded on 11th August, 1990 by the then Prime Minister. [Thereafter, the award ceremony was not held for many years. High Power Committee of Secretaries on MoU (HPC) took a decision in 10th March, 1995 to give special award to the top ten excellent performing CPSEs and give certificate of merits to all excellent performing CPSEs]. The MoU awards for the year 1998-99 were given by the Prime Minister on 1st April, 2000. For the year 2001-02, the awards were given by the President of India on 5th April, 2003. For the year 2002-03, the awards were given by the Prime Minister of India on 4th September, 2004. The MoU award ceremony for the year 2003-04 was held on 10th January, 2006 and the awards were given by the Vice President of India. The awards for the year 2004-05 and 2005-06 were

given by Hon'ble Prime Minister on 8th March, 2007.

4.12 Principles for MoU Excellence Awards

The basic principles for selecting the Top 10 CPSEs for MoU Excellence Awards as laid down by HPC in its meeting dated 10th March 1995 are as follows:-

(i) The profit of the CPSE in the year should be higher compared to the previous year.

(ii) It should not be loss-making enterprise.

(iii) The composite score of the CPSE should not be more than 2.00.

4.13 Review of the MoU Awards to CPSEs

4.13.1 The High Power Committee (HPC) on MoU during its meeting held on 15th December, 2006 decided to constitute a Committee under the Chairmanship of Shri N.K. Sinha, Chairman, Public Enterprises Selection Board (PESB) to review the existing system of MoU Excellence Awards to CPSEs. The Committee submitted its Report in May, 2007.

4.14 New system of Excellence Awards (w.e.f. 2006-07 onwards)

4.14.1 The report of the N.K.Sinha Committee was considered by the HPC in its meeting dated 27.7.2007 and the following decisions were taken:

(i) There would be MoU evaluation of CPSEs only once during the year based on audited figures. Those CPSEs who do not submit self evaluation score based on audited accounts to DPE by 31st August will not be eligible for the Award.

(ii) The MoU composite scores and ratings should be prepared and finalized by the Syndicate Group concerned of the Task Force.

(iii) Once the MoUs are signed between the CPSEs and the Departments, no revision of targets will be permitted.

(iv) The existing system of equal weightage of 50% each to financial and non-financial parameters in MoU, which is based on NCAER Report should continue for the time being.

(v) The total number of Awards will be 12 (1 from each of 10 Syndicates, 1 from the listed CPSEs, 1 from amongst the turnaround sick and loss making Enterprises). All other excellent performing CPSEs will get merit certificates.

(vi) Three basic principles for selection of CPSEs for MoU Excellence Awards as laid down by HPC in its meeting dated 10th March, 1995 should be continued.

(vii) As the Excellent grading has a range of 1 to 1.5, CPSEs getting a composite score upto 1.5 will be eligible for MoU Excellence Awards and Certificates.

(viii) Compliance of Corporate Governance should also be included as one of the criteria for consideration of the awards in all the 3 categories for the year 2007-08 onwards.

4.15 Coverage of CPSEs under the MoU System

Year	No. of MOU's signed	Year	No. of MOU's signed
1987-88	4	1998-99	108
1988-89	11	1999-2000	108
1989-90	18	2000-01	107
1990-91	23	2001-02	104
1991-92	72	2002-03	100
1992-93	98	2003-04	96
1993-94	101	2004-05	99
1994-95	100	2005-06	102
1995-96	104	2006-07	113
1996-97	110	2007-08	144
1997-98	108	2008-09	147

4.15.1 For the year 2009-10, 207 CPSEs (147 holding CPSEs and 60 subsidiaries CPSEs) are to sign MoU.

4.16 Performance of the MoU signing CPSEs

4.16.1 The actual performance of the MoU signing CPSEs is evaluated w.r.t. the targets fixed at the beginning of the year and they are rated as Excellent, Very Good, Good, Fair and Poor as per their performance. The ratings secured by the CPSEs during the last 6 years and their performance are as under:-

Rating	No. of Public Sector Enterprises					
Year	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
Excellent	46	54	45	49	46	55
V.Good	21	21	31	32	37	34
Good	12	10	12	15	13	15
Fair	16	11	10	06	06	08
Poor	02	00	01	00	00	00
Total	**97**	**96**	**99**	**102**	**102**	**112**

4.17 Introduction of MoU system in State Level Public Enterprises

4.17.1 Conference of Secretaries of States and Union Territories who are in charge of State Level Public Sector Enterprises (SLPEs) was held at Vigyan Bhavan, New Delhi on 10.12.2008 for preparation of an Annual Survey of SLPEs and introduction of the MoU system in State Level Public Sector Enterprises. The various aspects of the development of SLPEs were discussed. Apart from the Minister and the Minister of State of Heavy industries and Public Enterprises, Member (Industry), Planning Commission also addressed the Conference. The experience of the system of MoU as a management tool for improving the performance of CPSEs through increased autonomy with accountability was shared with participants. A draft MoU format relevant for SLPEs was taken up for discussion with the Secretaries of the State Governments in the Conference.

4.17.2 Based on the deliberations in the Conference with Secretaries of the State Government and the various inputs obtained from the State Governments, DPE has prepared a Model MoU document that can be conveniently used by the State Governments for the SLPEs. Minister (HI&PE) and Secretary, DPE have written separate D.O. letters alongwith model MoU documents to all the Chief Ministers of States and Chief Secretaries of States and Union Territories respectively requesting them to consider adoption of the MoU System for the State Level PSEs.

Chapter 5

Human Resource Development

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

5.2 Executive Training Programmes

5.2.1 As the nodal Department for PSEs, the Department of Public Enterprises is supplementing the efforts of the public enterprises towards human resource development by organizing Executive Development Programmes (EDPs) for senior and middle level executives in collaboration with premier Management/ Training Institutes in the country.

5.2.2 The CPSEs design their own human resources development programmes so as to upgrade the skills and knowledge *of middle* and senior level executives by giving them training in India. To supplement the efforts of CPSEs, some of the premier management/ training institutes and CPSEs are conducting training programmes in collaboration with the Department of Public Enterprises. The EDPs are conducted for a duration of 2-5 days. During 2007-2008, 26 such programmes were conducted and for the year 2008-09, 20 such progeammes are planned are planned. These programmes are organized in collaboration with CMC Limited, Jawaharlal Nehru Institute for Development, Institute of Company Secretaries, the Institute of Cost and Works Accountants of India, Hyderabad, National Institute of Micro Small and Medium Enterprises, Hyderabad, National Institute of Financial Management, Faridabad, Institute of Chartered Accountants of India, Indian Society for Training and Development, Institute of Company Secretaries of India, Indian Society of health Administration, Bangalore, etc.

5.2.3 The subjects covered under these programmes include financial management, leadership challenge, effective marketing management, total quality management, information technology & e-commerce, management information systems, communication skills,

corporate governance, MOU principles & practices, project management, capital market reform & risk management, negotiation strategies & skills, health and stress management, industrial relations & labour issues, international taxation/ international finance and Workshop on Cluster Development Accounting Standards.

5.2.4 India is a founder member of International Centre for Promotion of Enterprise (ICPE), Ljubljana, Slovenia which is an inter-governmental organization. India has doubled its annual contribution to ICPE from the year 2007-2008. Currently, Indian nominee is the Director-General of ICPE. ICPE also conducts full year MBA Course every year. Secretary, DPE is a member on the Board of Governors of IIM, Kolkata and Institute of Public Enterprises, Hyderabad. DPE is also a member of the Executive Board of the Standing Conference of Public Enterprises.

5.3 PERSONNEL POLICY

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

5.4 PROCEDURE TO BE OBSERVED FOR BOARD LEVEL APPOINTMENTS FOR CPSEs REQUIRING APPROVAL OF ACC

5.4.1 In September, 2005 powers for entrusting additional charge arrangements in all scheduled CPSEs have been delegated to the respective Ministries subject to certain conditions.

5.4.2 The issue relating to requirement of fresh vigilance clearances for extension of additional charge arrangements in respect of Board level posts in Central Public Sector Enterprises (CPSEs) had been considered by the Government in consultation with Central Vigilance Commission and the following further guidelines had been issued in October, 2007:

(a) for additional charge of Board level positions in PSUs, for an initial period of up to three months, clearance from the CVO would suffice;

(b) for continuation of the additional charge arrangements, beyond three months, clearance from CVC would be required; and

(c) fresh CVC clearance would be required, if the arrangements continue, beyond one year.

(d) In the cases where additional charge is assigned to either a functionary of another PSU, or an officer from a Ministry, clearance from the CVO would not suffice, and CVC clearance would be necessary.

5.4.3 The matter was again considered by the Government in consultation with Central Vigilance Commission and it has been decided that henceforth in such cases clearance from the Commission is not required to be sought for the purpose of additional charge arrangements in respect of Board-level functionaries in PSUs, unless the Department concerned has material in their possession on the basis of which it has reason to believe that vigilance status has changed since the incumbent was last cleared for Board level appointment. The clearance from CVO would continue to be required as stipulated in the foregoing paragraph. The earlier instructions dated October, 2007 would continue to apply in cases where the Functional Director of a CPSE or an officer from the Ministry is proposed to be given additional charge of MD/CMD of the CPSEs.

5.4.4 The following guidelines as directed by ACC were conveyed to all administrative Ministries/Departments for adherence:-

- The power to approve additional charge in the Central Public Sector Undertakings upto a period of three months has been delegated to the Minister-in-charge, and for the next three months, to the MOS (PP) vide this Department's OM No.26(3)EO/2004(ACC) dated 17.8.2005, subject to the condition that the person should be clear from the vigilance angle. The power to approve additional charge beyond six months vests with the ACC.
- The ACC has also approved that in the case of subsidiary CPSEs, the additional charge of the post of MD/CMD should be assigned to the senior most Functional Director of that subsidiary company having vigilance clearance. In case no such Functional Director is in position in the subsidiary CPSE, the additional charge of the post of MD/CMD of the subsidiary company could be automatically assigned to the CMD/ Functional Director of the holding company who is the nominee Director of the holding company on the Board of subsidiary company. However, this assignment should not result in contravention of Section 316 of the Companies Act, 1956.

5.5 Restrictions on Top Level Executives of Central Public Sector Enterprises (CPSEs) Joining Private Commercial Undertakings after Retirement

5.5.1 In supersession of all the previous guidelines issued on the subject, it has been decided to incorporate the following proviso in the CDA Rules/ Service Rules of the public enterprises and also in the terms & conditions of appointment of full time Directors, including Chief Executives.

"No functional Director of the company including the Chief Executive who has retired/resigned from the service of the company, after such retirement/ resignation, shall accept any appointment or post, whether advisory or administrative, in any firm or company, whether Indian or foreign, with which the company has or had business relations, within one year from the date of retirement without prior approval of the Government. The term retirement includes resignation; but not the cases of those whose term of appointment was not extended by Government for reasons other than proven misconduct. The term 'business relations' includes 'official dealings' as well."

5.5.2 Functional Directors including Chief Executives who after superannuation or resignation accept employment in private commercial firms without prior sanction of the Government, will henceforth be debarred from being appointed as full time/part time Directors of the CPSEs. Further, in order to secure compliance of the restrictions, the CPSEs shall secure a bond from the concerned person at the time of his/her employment/retirement/resignation as Director in CPSEs for an appropriate sum of money payable by him/her as damages for any violation of the restrictions.

5.5.3 The administrative Ministry/Department shall examine the requests received from the Functional Directors including Chief Executives on case to case basis depending upon the merit of the case after obtaining 'no objection' from the concerned CPSE and grant permission for post retirement employment with the approval of their Minister-in-charge.

5.5.4 The administrative Ministry/Department may grant permission keeping in view the following aspects:-

(a) The official concerned has had no official dealings with the prospective employers in the preceding five years.

(b) Whether the ex-functional Directors or ex-chief executives has been privy to sensitive or strategic information in the last years of his service which is

directly related to the areas of interest or work of the organization which he proposes to join or the areas in which he proposes to practice/consult.

(c) Whether there is conflict of interest between the policies of the office (s) he has held in the last 5 years and the interest represented or work undertaken by the organization he proposes to join. Such conflict of interest, however, should not be interpreted narrowly to mean normal economic competition with Government or its Enterprises.

(d) Whether the service record of the ex-functional Director or ex-chief executive is clear, particularly with respect to integrity and dealings with Government as well as with CPSEs/ non-Government organizations.

(e) Applicant's commercial duties will not involve liaison or contact with the Government Departments/PSEs,

(f) The employer of the applicant should not get an unfair advantage due to previous official positions/experience/ knowledge of the incumbent and

(g) The present emoluments and pecuniary benefits should not be far in excess of those currently prevalent in the industry. The words "far in excess" should not be narrowly interpreted to cover increases in such benefits that may be result of buoyancy in the industry or in the economy as a whole.

5.5.5 The administrative Ministry/Department shall take a final decision on the application for granting permission to accept any appointment/post after retirement and communicate the same to the applicant within a time limit of 30 days from the date of receipt of the application complete in all respects. In case no decision is communicated within 30 days, the applicant may take up the assignment presuming that the permission has been granted.

5.5.6 Wherever permission is to be refused on such requests, an opportunity may be given to the applicant to present his case and final decision in this regard shall be communicated after consultation with DPE.

5.6 Prescription of Qualification/ Experience for Various Board Level Positions in PSUs

5.6.1 The issue of prescription of qualification/ experience for various Board level positions in PSUs and laying down norms to infuse more transparency and objectivity in the PESB selections has further been considered by the Government and it has been decided that the Administrative Ministry concerned may, in consultation with the PESB, finalise the eligibility criteria in respect of various Board level positions in different PSUs under their control. Once the recruitment norms are finalized, such norms should have validity for a minimum period of 5 years. The finalised eligibility criteria should be open for the information of the general public.

5.6.2 In case of any disagreement or dispute between the PESB and the Administrative Ministry in relation to finalization of eligibility conditions, the matter should be referred to ACC for final orders.

5.6.3 As per the directions of ACC, all administrative Ministries/Departments have been requested to initiate action for review, updation/finalization of recruitment rules (RR) for Board level positions in PSUs and furnish the status report in this regard to DOPT with a copy to DPE and PESB.

5.7 Incentive Scheme for Chief Executives/Functional Directors of Sick CPSEs for which Government have approved the Revival Package.

5.7.1 The Government has considered the issue relating to restructuring of CPSEs and also the

ways and means for funding the scheme for revival of such CPSEs as well as providing strong and effective top management team for them. In this context, it was felt that there was a need to attract Board level executives capable for turning around sick CPSEs and give them continuity of tenure for the revival package to succeed. In this regard instructions were issued vide O.M. No.18(11)/2005-GM-GL-88 dated 24th July, 2007, which inter alia, provided that Chief Executives and Functional Directors of those CPSEs which are able to achieve the projected targets of the revival plan would be considered for suitable incentive.

5.7.2 The Government has considered the above matter and has decided to introduce an incentive scheme for Chief Executives/ Functional Directors of sick/loss making CPSEs for which Government has approved the revival package. The details of the incentive scheme are as under:-

(i) This scheme is applicable only to the whole-time Chief Executives/ Functional Directors of sick/loss making CPSEs for which Government has approved the revival package and the CPSEs have timely achieved the projected targets of the revival plan.

(ii) The whole- time Chief Executive/ Functional Directors of the CPSEs referred in this scheme are *jointly* entitled to share the profit of their concerned CPSEs.

(iii) The total *group* incentive payable under this scheme to the whole-time Chief Executive/Functional Directors should not exceed Rs.10 lakh per annum.

(iv) The total amount of *group* incentive payable to the whole-time Chief Executive/ Functional Directors shall be distributed among them in the following manner.

(a) In the case of Schedule 'A' and 'B' CPSEs, the total amount of incentive available for distribution will be distributed among the whole-time Chief Executive and all whole-time Functional Directors in the ratio of 4 : (3 X Number of Functional Directors) subject to the ceiling mentioned in the Table given below.

(b) In the case of Schedule 'C' and 'D' and 'Un-categorized' CPSEs, the total amount of incentive available for distribution will be distributed among the whole-time Chief Executive and all whole-time Functional Directors in the ratio of 7 : (5 X Number of Functional Directors) subject to a ceiling mentioned in the Table given below:

S. No.	Schedule of the CPSE	Maximum Incentive payable to Whole-time Chief Executive (Rs. per annum)	Maximum Incentive payable to Whole-time Functional Directors (Rs. per annum per person)
1.	Schedule-A	2,40,000	1,80,000
2.	Schedule-B	2,40,000	1,80,000
3.	Schedule-C	2,10,000	1,50,000
4.	Schedule-D & Un-categorized	2,10,000	1,50,000

If any whole-time Chief Executive/Functional Director was employed for a part of the Financial Year, he/she shall be paid incentive on proportionate basis.

(v) The term 'Profit' for the purpose of this scheme means Profit before Tax before prior period adjustments and extraordinary items like waivers/ concessions/subsidy/write-offs/grants received from Government/ banks/ Financial Institutions. However, subsidy if any received by the CPSE as a part of the scheme administered by the Government will be considered for computing the profit.

(vi) The incentive for a particular year will be computed based on the audited accounts of that year and the same will be paid by the Company as a lump sum in the succeeding year. For example the incentive for the year

2007-08 will be computed on the basis of the audited accounts of the year 2007-08 and the same will be paid during 2008-09.

(vii) The Scheme is effective from the year 2007-08. The incentive under this scheme should be paid only after the same is approved by the Remuneration Committee and also by the Board of Directors.

(viii) The Scheme will be valid for 5 years and will be reviewed thereafter.

5.7.3 The proposals in this regard, after approval of the Board, may be submitted by the CPSEs to their concerned administrative Ministry/ Department for approval. The concerned administrative Ministry/Department, with the concurrence of its FA, may take the final decision in this regard.

5.7.4 The Government has since approved the implementation of Performance-Related Pay (PRP) as part of the salary revision of CPSE executives including Chief Executive and Functional Directors of profit making CPSEs. The Chief Executives and Functional Directors of those sick and loss making CPSEs have the option to opt for any one of the two schemes, i.e., either the PRP approved by the Government or the proposed incentive scheme in respect of sick and loss making CPSEs.

5.8 Employment in Central Public Enterprises Under Reserved Categories

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

5.8.2 The present quota of reservation for employees belonging to Scheduled Castes, Scheduled Tribes and Other Backward Classes (OBCs) where recruitment is on All-India basis through open competition as well as other categories of employees entitled to reservation is indicated below:–

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

Although the administrative Ministries/ Departments concerned have been made responsible for implementation of reservation policy, the Department of Public Enterprises also keep a watch on the progress made by PSEs in the implementation of the reservation scheme in the recruitment by calling for Annual Reports from the public enterprises and also by taking follow-up action after scrutinizing these reports. Based on the information furnished by the PSEs the position regarding representation of Scheduled Castes, Scheduled Tribes and OBCs in respect of 206 public enterprises as on 1.1.2008 is given below:

Group	Total No. of employees	SCs No.	%	STs No.	%	OBC No.
As on 1.1.2008 (Based on information furnished by 206 Enterprises)						
Group 'A'	196116	27353	13.94	9435	4.81	15192
Group 'B'	218599	30597	13.99	12730	5.82	19369
Group 'C'	836590	164411	19.65	72219	8.63	128660
Group 'D' (Excluding Safai karamcharis)	276445	57987	20.97	34409	12.44	50691
Total	**1527750**	**280348**	**18.35**	**128793**	**8.43**	**213912**
Group 'D' (Safai Karamcharis)	13012	9864	75.80	397	3.05	520
Grand Total	**1540762**	**290212**	**18.83**	**129190**	**8.38**	**214432**

The need to ensure timely filling up of reserved posts has been stressed in various instructions from time to time. All administrative Ministries/ Departments have been requested to advise the PSEs under their administrative control to take effective steps to fill up the unfilled reserved posts and backlog vacancies in direct recruitment as well as in promotion in accordance with the existing instructions. One of the agenda of UPA Government enunciated in National Common Minimum Programme (NCMP) is to launch Special Recruitment Drive to fill up the backlog reserved vacancies for SCs & STs in the CPSEs. DPE vigorously followed up this issue with the CPSEs for filling up the backlog vacancies for SC/ST in direct recruitment as well as in promotions.

5.9 Reservation for OBCs

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

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

5.10 Reservation for persons with disabilities

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

Chapter 6

Permanent Machinery of Arbitration

6.1 Permanent Machinery of Arbitrators has been set up in Department of Public Enterprises for resolving commercial disputes, except taxation, between CPSEs inter-se as well as between a CPSEs and a Central Government Department/Ministry. From 1993-94 disputes with Port Trusts have also been included under the purview of PMA for arbitration. The Ministry of Railways were excluded from the purview of PMA vide DPE OM dated 12.2.97.

6.2 PMA guidelines were revised on 22.1.04. The disputes are required to be referred to Department of Public Enterprises for its reference to the Arbitrator of PMA. Secretary, Department of Public Enterprises on being satisfied with prima facie existence of dispute, refers the dispute to the Arbitrator of the PMA for Arbitration. The Arbitration Act, 1940 (now 1996) is not applicable in these cases. No outside lawyer is allowed to appear on behalf of either party for presenting/defending the cases.

6.3 The Arbitrator issues notices to parties concerned for submission of facts of the case and their claims and counter claims. He invites the parties to present their case before him. Based on written records and oral evidence the Arbitrator gives an award. Both the disputing parties have to bear the arbitration cost equally. An appeal against the award of the Arbitrator can be made to the Secretary, Ministry of Law, in case either party is not satisfied with the award. The decision of Secretary, Ministry of Law is final and binding on the parties. No appeal can be made in the Court of Law/Tribunal against the decision of Secretary (Law).

6.4 There is one Arbitrator in the PMA and ever since the PMA was created in 1989, 228 cases have been referred to the Arbitrators of PMA, out of which Awards in 160 cases have been published. The PMA is designed to be self supporting, and hence the PMA charges an Arbitration fee which is worked out by the Arbitrator based on the formula given in the guidelines.

Chapter 7

Wage Policy and Manpower Rationalisation

7.1 The Department of Public Enterprises, inter alia, functions as a nodal agency for evolution of policy relating to wage settlements of unionized employees/ pay revision of non-unionized supervisors and executives holding posts below the Board level as well as at the Board level in CPSEs. The Department renders advice to the administrative Ministries/ Departments and the CPSEs in matters relating to the wage policy and revision in the scales of pay of the executives. The CPSEs are largely following Industrial Dearness Allowance (IDA) pattern scales of pay and in some cases Central Dearness Allowance (CDA) pattern scales of pay.

7.2 Industrial Dearness Allowance (IDA) Pattern and Related Scales of Pay in CPSEs

7.2.1 Government policy relating to pay scales and pay pattern is that all employees of the CPSEs should be on IDA pattern and related scales of pay. Instructions had been issued by the DPE in July, 1981 and July, 1984 to all the administrative Ministries that as and when a new CPSE is created or established, IDA pattern and related scales of pay should be adopted ab-initio. There are 242 CPSEs (excluding Banks, Insurance Companies and newly setup CPSE) under the administrative control of the Central Government. They employ approximately 15.70 lakh employees including executives, supporting staff and workmen out of which approximately 3 lakhs are executives and non unionized supervisors. Out of this, around 96% of workmen and executives are on IDA pattern and related scales of pay.

7.3 Pay Revision for Executives/ non-unionised Supervisors under IDA pattern

7.3.1 The last pay revision for the IDA executives and non-unionized supervisors was done w.e.f 01.01.1997 for a period of ten years based on the recommendations of Justice Mohan Committee. The periodicity of pay revision was for 10 years w.e.f. 01.01.1997.

7.4 Pay Revision Committee for the Revision of Scales of Pay of Employees in CPSEs w.e.f. 1.1.2007

7.4.1 The Second Pay Revision Committee (2nd PRC) for the revision of scales of pay of Board level and below Board level executives including non-unionised supervisors of CPSEs following Industrial Dearness Allowance (IDA) pattern scales of pay w.e.f. 1.1.2007 was constituted vide the Government of India Resolution dated 30.11.2006. The Pay Revision Committee was headed by Mr. Justice M. Jagannadha Rao, retired Judge, Supreme Court of India as Chairman.

7.4.2 The Committee submitted its report to the Government on 30.05.2008. The recommendations of 2nd Pay Revision Committee were considered by Government.

The orders for pay revision of executives and non unionised Supervisors of CPSEs w.e.f. 01.01.2007 were issued on 26.11.2008. The guidelines provide for the pay scale of 12600-32500 for the executives in E-0 grade, at minimum level while the pay scale of Rs. 80000-125000 at maximum level has been provided for CMD of Schedule-A CPSEs. A uniform fitment benefit @30% on Basic Pay plus DA @68.8% as on 01.01.2007 was provided.

7.4.3 The implementation of pay revision is linked to affordability factor of the CPSEs subject to the conditions that there should not be a dip of more than 20% in Profit Before Tax for the year 2007-08 in respect of executives and non-unionized supervisors. CPSEs which are not able to adopt these revised pay scales, may provide lower fitment of 10% or 20%, depending on affordability. Rate of annual increment will be @ 3% of the revised Basic Pay. Revised system of DA has been provided with 100% DA neutralization on 01.01.2007. The HRA to the employees of CPSEs will be @ rates of 30%, 20%, 10% of the Basic Pay. Other allowances/ perks may be subject to a ceiling of 50% of the Basic Pay. Certain allowances have been kept outside the ceiling of 50% of the Basic Pay.

7.4.4 The graded Variable Pay/ Performance Related Pay has been provided, which will be percentage of Basic Pay ranging from 40% to 200% of Basic Pay. The PRP would be determined based on the factors like MoU rating, individual performance, grade of the executive, constitution of Remuneration Committee headed by Independent Director. 60% of the PRP with ceiling of 3% of PBT will come out from the current year's profit and 40% of PRP will come from 10% of incremental profit. The total PRP will, however, be limited to 5% of year's PBT. 10% to 25% of the PRP may be paid as Employees' Stock Option Plan. The ceiling of Gratuity has been raised to Rs. 10 lakh w.e.f. 01.01.2007. CPSEs have been allowed 30% of Basic Pay as Superannuation Benefits.

7.4.5 Some issues relating to pay revision w.e.f. 01.01.2007 were examined and government conveyed its decision vide DPE O.M. dated 02.04.2009. Government also observed that, if there have been any observations, they need to be corrected. The decision of the government conveyed vide O.M. dated 26.11.2008 and 02.04.2009 has to be viewed as a package. Through this decision the employees of CPSEs would benefit in the following areas:-

(i) The benefit of merger of 50% DA with basic pay with effect from 1.1.2007, effectively amounting to 78.2% (as against 68.8% provided for earlier) has been allowed for the purpose of fitment.

(ii) The ceiling of 30% towards superannuation benefits would now be calculated on basic pay + DA instead of basic pay alone.

(iii) Instead of calculating cost of infrastructure created for its monitisation at replacement cost for the purpose of computing the perks and allowances, only the recurring expenditure would be taken into account which will also be restricted to 10% of the basic pay.

(iv) Instead of providing perks and allowances with effect from the date of Presidential Directive the benefit has been extended w.e.f. 26.11.2008 provided the Presidential Directives are issued within one month from the date of issue of DPE's O.M. dated 2.4.2009.

7.5 Wage Revision for Workmen under IDA pattern

7.5.1 In respect of workmen following IDA pattern scales of pay, the managements of CPSEs have freedom to negotiate revision of pay scales for the workmen within certain stipulated conditions. The last wage negotiation entered into between managements and the workers'

unions was for the period of 10 years from 1.1.1997. DPE vide its OM dated 9.11.2006 has issued the policy guidelines for the 7th Round of Wage Negotiations (which falls due on a general basis from 01.01.2007) with the unionized workmen of CPSEs. The guidelines are broadly similar to the earlier policy on the Sixth Round of Wage Negotiations. The guidelines, inter alia, broadly indicates that the wage settlement will be for a period of 10 years with 100% DA neutralization. The government vide O.M. dated 01.05.2008 furthermore, allowed the Administrative Ministries/Departments (concerned with the CPSEs) take a decision on a case by case basis for the periodicity of Wage Settlement below 10 years but not less than 5 years, with the approval of their Minister.

7.6. Landmark Judgment of Supreme Court on Pay Revision

7.6.1 The Supreme Court in Transfer petition No. 8 of 2000 in A.K. Bindal and others vs Union of India has passed the landmark Judgement on 25.4.2003 in case of pay revision of sick PSEs referred to BIFR. The A.K. Bindal case was dealing with the claim of employees of Fertilizer Corporation of India and Hindustan Fertilizers Ltd for revision of IDA pay scale of 1992. Both these were sick PSEs referred to BIFR. The petitions prayed for quashing the condition linking revision of pay scales of employees of sick enterprises to the revival packages being formulated by BIFR since this was the basis of denial of wage revision to the employees of these two companies w.e.f 1.1.1992.

7.6.2 The Supreme Court has made observations on the following lines:-

(i) The employees of the Government Companies are not civil servants and so are not entitled to protection under Article 311 of the Constitution.

(ii) Since employees of Government Companies are not government servants they have no legal right to claim that government should pay their salary or that the additional expenditure incurred on account of revision of their pay scale should be met by the Government.

(iii) The economic viability or financial capacity of the employer Company should be taken into consideration in the matter of revision of the pay scales of the employees.

(iv) There is no legal or constitutional infirmity in DPE OM dated 19.7.1995 stipulating that for the sick PSEs registered with the BIFR, pay revision and grant of other benefits will be allowed only if it is decided to revive the unit and the revival package should include the enhanced liability on this account.

7.7 Pay-Revision of Employees under CDA Pattern in CPSEs

7.7.1 A High Power Pay Committee (HPPC) was appointed by the Government in pursuance of the Supreme Court directions dated 12.3.1986, which submitted its Report to the Government on 24.11.1988. Its recommendations have been implemented in 69 CPSEs which were listed the HPPC report. CDA pattern pay scales are applicable to some of the clerical staff, unionized cadres and executives of these 69 CPSEs who were on the rolls of these companies as on 1.1.1986 and upto 31.12.1988 and were in receipt of CDA pattern pay scales during that time. In pursuance of the Supreme Court direction dated 3.5.1990 read with the subsequent directions dated 28.8.1991, IDA pattern and related scales of pay have been introduced in these CPSEs with effect from 1.1.1989. Out of 69 CPSEs (covered under HPPC), at present there are 48 CPSEs, which are following both CDA and IDA pattern scales of pay. As per the recommendations of the High Power Pay Committee and Supreme Court directives thereon, the

employees following CDA pattern of scales of the Central Public Sector Enterprises would get pay revision only as and when similar changes are effected for the Central Government employees. Accordingly, the recommendations of 5th Pay Commission w.e.f. 1.1.1996 had been extended to the employees of CPSEs following CDA pattern of scales. In addition, the employees of CPSEs following CDA pattern have also been allowed the benefit of merger of 50% of DA with basic pay w.e.f 1.4.2004. This benefit has been allowed to the employees of CPSEs that are not loss making and are in a position to absorb the additional expenditure on account of merger of DA with basic pay from their own resources without any budgetary support from the Government.

7.7.2 DPE vide its OM dated 14.10.2008, has revised the pay scales of the employees of CPSEs following CDA pattern w.e.f. 01.01.2006. The benefit of pay revision was allowed only to the employees of those CPSEs that are not loss making and are in a position to absorb the additional expenditure on account of pay revision from their own resources without any budgetary support from the Government. It has also been indicated that the Board of Directors would consider the proposal of pay revision of all the employees in the CPSE, keeping in mind the affordability and capacity of the CPSE to pay and submit a proposal to its Administrative Ministry/Department, which will approve the proposal with the concurrence of its Financial Advisor. In respect of Food Corporation of India, the concurrence of Department of Expenditure would also be required. Vide DPE O.M. dated 20.01.2009 guideline on revised allowances have also been issued.

Chapter 8

Categorisation of CPSEs

8.1 The Public Sector Enterprises are categorized into four schedules namely 'A', 'B', 'C' & 'D'. The pay scales of chief executives and full time functional Directors of CPSEs are linked with the schedule of the concerned enterprise. Normally the Chief Executive of the enterprise is given the scale of pay attached to the schedule of the company while the functional Directors are allowed the scale of pay attached to the next below schedule. At times the posts of Chief Executives or functional Directors are upgraded on personal basis so that exceptionally capable executives are retained in the CPSEs where they had rendered meritorious service. Such arrangements also help in attracting talent to sick or high-tech enterprises.

8.2 The initial categorization of CPSEs in the mid-Sixties was made on the basis of their importance to the economy and complexities of their problems. Over the years the Department of Public Enterprises has evolved norms for the purpose of categorization/re-categorization of CPSEs. Categorization is based on criteria such as quantitative factors like investment, capital employed, net sales, profit, number of employees and qualitative factors like national importance, complexity of problems, level of technology, prospects for expansion and diversification of activities and competition from other sectors, etc. In addition, criteria relating to the strategic importance of the CPSE is also taken into account. The present procedure involves consideration of the proposals in the administrative Ministry concerned and the Department of Public Enterprises which consults the Public Enterprises Selection Board. At present there are 58 Schedule 'A', 71 Schedule 'B', 47 Schedule 'C', 6 Schedule 'D' and 60 uncategorized PSEs. During the year, three CPSEs have been upgraded from Schedule 'B' to 'A'; one CPSE has been categorized in Schedule 'B' and one CPSE in Schedule 'C'. The schedule-wise list of CPSEs is given in Appendix - II. Apart from this, twelve posts of Functional Directors have been created.

Chapter 9

Board for Reconstruction of Public Sector Enterprises (BRPSE)

9.1 In order to address inter-alia, the problems relating to revival of sick CPSEs, Board for Reconstruction of Public Sector Enterprises (BRPSE) was constituted by the Government in December, 2004. BRPSE consists of Chairman in the rank of Minister of State, three non-official Members and three official Members. In addition, Chairman, Public Enterprises Selection Board (PESB), Chairman, Standing Conference of Public Enterprises (SCOPE) and Chairman, Oil and Natural Gas Corporation Ltd. (ONGC) are permanent invitees, while Secretary of the concerned administrative Ministry/ Department is a special invitee to the meetings. At present there is also an exclusive Secretary to BRPSE in the rank of Secretary to Government of India.

9.2 The first meeting of BRPSE was held on 16.12.2004. 14 meetings of BRPSE have taken place during January 2008 to March 2009. During this period the Board had considered the proposals of 12 PSEs (including 3 remitted cases of previous years) and given its recommendations in respect of 8 PSEs and the balance 4 cases have been remitted to the concerned administrative Ministries/Departments for resubmission.

9.3 The recommendations of BRPSE in respect of the 8 PSEs fall under the following broad categories.

Sl. No.	Category	No. of PSEs
1.	Revival through restructuring package	6
2.	Revival through take over by State Govt./ joint venture with PSEs/ PSEs /Disinvestment	2
	Total	**8**

9.4 Since the inception of BRPSE and till March 2009, 68 meetings have taken place and the Board has considered proposals of 63 PSEs. Till March 2009, the Board has given its recommendations in respect of 56 PSEs. In addition, the Board has also recommended to the Government to accord 'in principle' approval for reversal of its earlier decision to close the units of Fertilizer Corporation of India Ltd. (FCIL) and Hindustan Fertilizer Corporation Ltd. (HFCL) so as to explore various options for their revival.

9.5 The recommendations of BRPSE in respect of the 56 PSEs (Appexdix-III) fall under the following broad categories:

Sl. No.	Category	No. of PSEs
1.	Revival through restructuring package	41
2.	Revival through take over by State Govt./Joint Venture with PSEs/ Disinvestment	9
3.	Revival through merger with/ takeover by other CPSEs	4
4.	Closure	2
	Total	**56**

9.6 Out of the 56 cases recommended upon, Government has so far approved the proposals of 37 PSEs. In addition, Government have also decided 'in principle' to examine the possibility of revival of FCIL and HFCL subject to the confirmed availability of Gas. The Government have further approved (i) revival of Barauni unit of HFCL through Special Purpose Vehicle, (ii) constitution of Empowered Committee of Secretaries with the mandate to evaluate all options for revival of closed units and make suitable recommendations for consideration of Government, and (iii) in-principle approval for writing off GOI's loans and interest liabilities subject to finalization of a fully tied up investment proposal for revival of the closed units.

9.7 Other major recommendations of BRPSE

9.7.1 BRPSE, besides giving recommendations on sick PSEs has also recommended a scheme for attracting managerial talent to sick PSEs etc. Govt. has already considered this recommendation and issued necessary guidelines.

Chapter 10

Scheme of Counselling, Retraining and Redeployment

10.1 Restructuring of enterprises is a global phenomenon, particularly in the context of liberalized economy. There has been thrust on restructuring the central public enterprises both at macro as well as micro level. In the process, rationalization of manpower has also become a necessity. But this affects in some cases the interest of the workers. As such, the policy of the Government has been to implement reforms with a humane face and provide adequate safety net for the affected workers.

10.2 Considering the emerging need to have safety net, Government had established National Renewal Fund (NRF) in February, 1992 broadly to cover the expenses of VRS and to provide retraining to the workers in the organized sector. However, in the backdrop of on going restructuring exercises in the central enterprises, focus was given on the need of CPSEs. The NRF was abolished in February, 2000. The retraining activity was administered by Department of Industrial Policy & Promotion till 31st March, 2001. The scheme for Counselling, Retraining and Redeployment (CRR) of rationalized employees of CPSEs is under implementation by Department of Public Enterprises since 2001-02.

10.3 The scheme for Counselling, Retraining and Redeployment (CRR) inter-alia aims:

- to provide opportunity for self-employment.
- to reorient rationalized employees through short duration programmes.
- to equip them for new avocations.
- to engage them in income generating self-employment.
- to help them rejoin the productive process.

10.4 The main elements of the CRR programme are Counselling, Retraining and Redeployment. Besides, a new element of sensitization programme has also been included under CRR programme.

10.5 Counselling helps the rationalized employees to absorb the trauma of leaving the organization, to properly manage their funds including compensation and to motivate them to face the challenges and to re-join the productive process. Similarly, strengthens their skill/expertise. Selected training institutes impart need-based training of 30 days / 45 days / 60 days modules. The faculty support is both internal and external, and the approach is to provide classroom lectures as well as field experience. In the process, trainees interact with experts from various fields and are being helped in preparation/ finalization of project reports. The retraining should lead to mostly through self-employment. In the present scheme, the objective is to maximize the rate of self-employment. The Nodal Agencies, therefore, provide need-based support, linkage with

credit institutions and continuously follow up with the retrained personnel.

10.6 For monitoring the CRR programme the in-built mechanism involves field visits and inspections by the concerned officers of DPE. Coordination Committees at local level have also been formed. The Scheme also provides for inter-ministerial Review Committee under Secretary (PE) with members from selected concerned Governments/agencies/CPSEs.

10.7 The Nodal Training Agencies are required to counsel VRS optees, impart training and reorientation, develop curriculum /materials, prepare feasibility report market survey, post training follow up, interface with credit institutions, support in self employment, regular liaison with CPSEs, convening meeting of Coordination Committee etc.

10.8 CPSEs are the key to the success of the scheme. They are supposed to extend all possible support for the welfare of the separated employees by clearing their compensation/dues before release. Long association with employees puts CPSEs in a better position to identify their retraining needs.

10.9 A Plan Fund of Rs. 8 crore was allocated initially during 2001-02, which was enhanced to Rs.10 crore during 2002-03 and 2003-04. The plan fund substantially increased to Rs. 30 crore during 2004-05 and 2005-06 and further enhanced to Rs. 31.50 crore during 2006-07. During 2007-08 and 2008-09, plan fund of Rs. 8.70 crore each was allocated for implementation of CRR scheme. In 2008-09, 19 nodal agencies were operational with 58 Employees Assistance Centres (EACs). Year wise number of persons trained under the scheme is shown as under:

Year	No. of persons trained
2001-02	8064
2002-03	12066
2003-04	12134
2004-05	28003
2005-06	32158
2006-07	34398
2007-08	9728
2008-09	9265
Total	**145816**

A list of operating nodal agencies is given at Appendix-IV.

10.10 Under zero based budgeting exercise, CRR Scheme has been revised during 11th Five Year Plan. The scheme continues with revised guidelines issued in November, 2007 to all operating nodal agencies, Chief Executives of CPSEs, concerned administrative Ministries/Departments and nodal Ministries/ Departments.

10.11 In order to improve the coverage of the scheme and make it more effective, following modifications have been incorporated in the scheme:

- One dependent of VRS optee could be considered where the VRS optee himself is not interested.
- Duration of training has been extended from 20, 30 and 40 days to 30, 45 and 60 days and expenditure norm has also been revised from Rs. 5300/-, Rs. 6600/- and Rs. 7900/- to Rs. 7000/-, Rs.9000/- and Rs.11000/- respectively.
- Separate amount for "follow up" has been assigned in the expenditure norm to ensure higher redeployment.
- Effective targeting, monitoring and redeployment.

Chapter 11

Official Language Policy

11.1 Hindi Cell of this Department is primarily responsible for implementation of various provision of the Official Language Act and the rules framed there under. Hindi Cell is also responsible for translation of documents required to be issued under Section 3(3) of the Official Language Act. As more than 80% of the staff of this Department knows Hindi, the Department has been notified under rule 10(4) of the Official Language Rules, 1976.

11.2 All notifications, resolutions, notices, circulars, papers laid on the Table of the house of Parliament etc., have been issued bilingually during the year 2008-09. Efforts were also made to promote original correspondence in Hindi. The Official Language Implementation Committee of DPE continues to function under the Chairmanship of the Joint Secretary.

11.3 With a view to create consciousness and accelerating the use of Hindi as Official Language, Hindi Pakhwada was organized by the Department from 15th September, 2008 to 26th September, 2008. During the Pakhawada three competitions namely, Hindi Essay writing, Hindi Shrutlekh and Hindi Elocution were organized for the officers and employees and cash prizes were distributed to the winners by the Secretary, Department of Public Enterprises.

11.4 The Department presents Annual "Public Enterprises Survey" on the working of Central Public Sector Enterprises in the Parliament every year. This is a voluminous and comprehensive document brought out by the Department simultaneously in English and Hindi.

Chapter 12

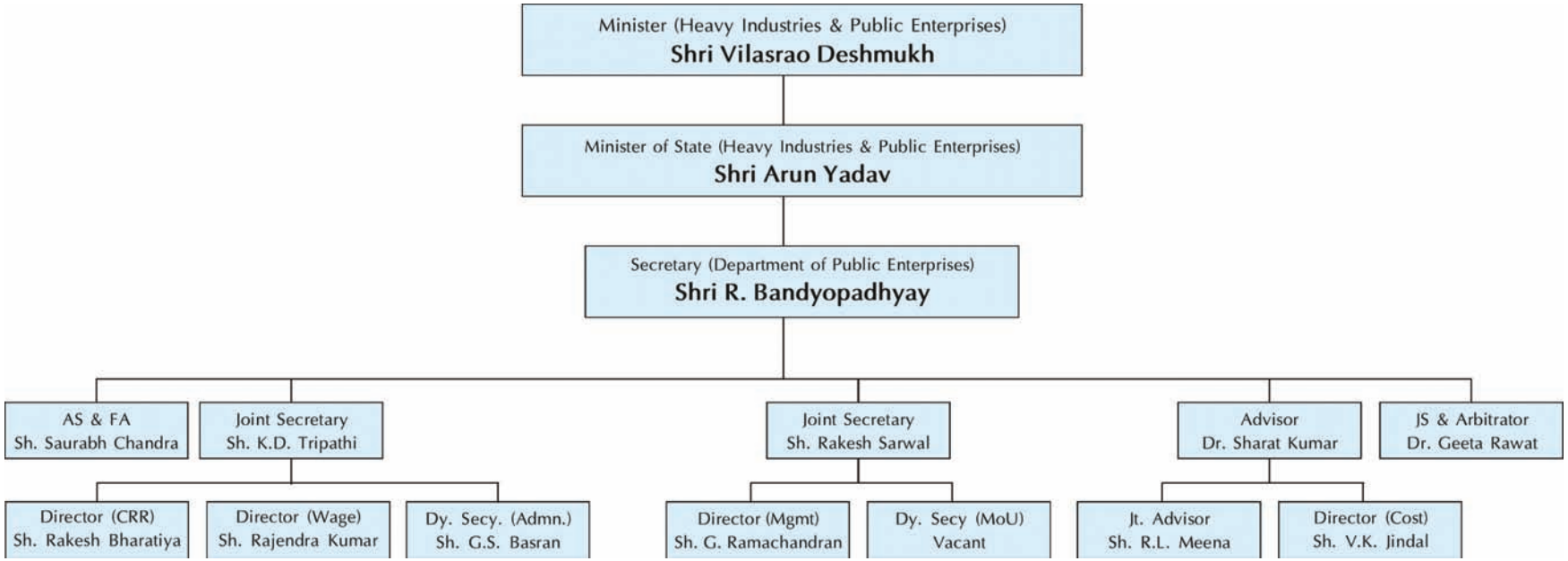
Welfare of Women

12.1 The principle of gender equality is enshrined in the Indian Constitution in its Preamble, Fundamental Rights, Fundamental Duties and Directive Principles. The Constitution not only grants equality to women, but also empowers the State to adopt measures of positive discrimination in favour of women. Within the framework of a democratic policy, our laws, development policies, plans and programmes have aimed at advancement of women in different spheres.

12.2 The Department has also set up a complaint committee under the chairmanship of a lady officer to ensure fair, safe and healthy environment at work place for women. The guidelines laid down by the Supreme Court relating to sexual harassment have been brought to the notice of all those working in this Department. Department of Public Enterprises vide their OM dated 29th May, 1998, has already issued detailed guidelines and norms to Chief Executives of PSEs for observance and prevention of sexual harassment of working women.

12.3 The Department of Public Enterprises is having a total sanctioned strength of 130. There are 84 officers/staff, in position, including 6 lady employees. The Department has made all possible efforts to create a healthy and congenial atmosphere so that women employees can perform duties with honour, dignity and without fear.

Organogram of Department of Public Enterprises



Schedule-Wise List of Central Public Sector Enterprises

As on 31st March, 2009

Schedule - A

1. Airports Authority of India
2. Bharat Bhari Udyog Nigam Ltd.
3. BEML Ltd.
4. Bharat Electronics Ltd.
5. Bharat Heavy Electricals Ltd.
6. Bharat Petroleum Corporation Ltd.
7. Bharat Sanchar Nigam Ltd.
8. Coal India Ltd.
9. Container Corporation of India Ltd.
10. Dedicated Freight Corridor Corporation of India Ltd.
11. Electronics Corporation of India Ltd.
12. Engineers India Ltd.
13. Fertilizers & Chemicals (Travancore) Ltd.
14. Food Corporation of India
15. GAIL (India) Ltd.
16. Heavy Engineering Corporation Ltd.
17. Hindustan Aeronautics Ltd.
18. Hindustan Copper Ltd.
19. Hindustan Paper Corporation Ltd.
20. Hindustan Petroleum Corporation Ltd.
21. HMT Ltd.
22. Housing & Urban Development Corporation Ltd.
23. I T I Ltd.
24. Indian Oil Corporation Ltd.
25. IRCON International Ltd.
26. Konkan Railway Corporation Ltd.
27. Kudremukh Iron Ore Company Ltd.
28. M M T C Ltd.
29. Mahanagar Telephone Nigam Ltd.
30. Mazagon Dock Ltd.
31. MECON Ltd.
32. Mumbai Railway Vikas Corporation Ltd.
33. National Aluminium Company Ltd.
34. National Aviation Company of India Ltd.
35. National Building Construction Corporation Ltd.
36. National Fertilizers Ltd.
37. NHPC Ltd.
38. National Mineral Development Corporation Ltd.
39. National Textiles Corporation Ltd.
40. NTPC Ltd.
41. Neyveli Lignite Corporation Ltd.
42. North Eastern Electric Power Corporation Ltd.
43. Oil & Natural Gas Corporation Ltd.
44. Oil India Ltd.
45. Power Finance Corporation
46. Power Grid Corporation of India Ltd.
47. RITES Ltd.
48. RailTel Corporation of India Ltd.
49. Rail Vikas Nigam Ltd.
50. Rashtriya Chemicals and Fertilizers Ltd.
51. Rashtriya Ispat Nigam Ltd.
52. Rural Electrification Corporation Ltd.
53. Satluj Jal Vidyut Nigam Ltd.
54. Security Printing & Minting Corporation of India Ltd.
55. Shipping Corporation of India Ltd.
56. State Trading Corporation of India Ltd.
57. Steel Authority of India Ltd.
58. Telecommunications Consultants (India) Ltd.

Schedule - B

1. Andrew Yule & Company Ltd.
2. Balmer Lawrie & Company Ltd.
3. Bharat Coking Coal Ltd.
4. Bharat Dynamics Ltd.
5. Bharat Heavy Plate & Vessels Ltd.
6. Bharat Pumps & Compressors Ltd.
7. Bongaigaon Refinery & Petrochemicals Ltd.
8. Brahmaputa Crackers & Polymers Ltd.
9. Brahmaputra Valley Fertilizer Corporation Ltd.
10. Braithwaite & Company Ltd.
11. BBJ Construction Ltd.
12. Bridge & Roof Company (India) Ltd.
13. British India Corporation Ltd.
14. Burn Standard Company Ltd.
15. Cement Corporation of India Ltd.
16. Central Coalfields Ltd.
17. Central Electronics Ltd.
18. Central Mine Planning & Design Institute Ltd.
19. Central Warehousing Corporation.
20. Chennai Petroleum Corporation Ltd.
21. Cochin Shipyard Ltd.
22. Cotton Corporation of India Ltd.
23. Dredging Corporation of India Ltd.

24. Eastern Coalfields Ltd.
25. Engineering Projects (India) Ltd.
26. Ennore Port Ltd.
27. Fertilizer Corporation of India Ltd.
28. Garden Reach Shipbuilders & Engineers Ltd.
29. Goa Shipyard Ltd.
30. Handicrafts & Handlooms Export Corporation Ltd.
31. Hindustan Cables Ltd.
32. Hindustan Fertilizer Corporation Ltd.
33. Hindustan Latex Ltd.
34. Hindustan Newsprints Ltd.
35. Hindustan Organic Chemicals Ltd.
36. Hindustan Shipyard Ltd.
37. Hindustan Steelworks Construction Company Ltd.
38. Hindustan Vegetable Oils Corporation Ltd.
39. HMT (International) Ltd.
40. HMT Machine Tools Ltd.
41. HMT Watches Ltd.
42. India Tourism Development Corporation Ltd.
43. India Trade Promotion Organisation
44. Indian Drugs & Pharmaceuticals Ltd.
45. Indian Railway Catering & Tourism Corporation Ltd.
46. Indian Railway Finance Corporation Ltd.
47. Indian Rare Earths Ltd.
48. Instrumentation Ltd.
49. M S T C Ltd.
50. Madras Fertilizers Ltd.
51. Mahanadi Coalfields Ltd.
52. Mangalore Refinery & Petrochemicals Ltd.
53. Manganese Ore (India) Ltd
54. Mineral Exploration Corporation Ltd.
55. Mishra Dhatu Nigam Ltd.
56. National Jute Manufacturers Corporation Ltd.
57. National Projects Construction Corporation Ltd.
58. National Small Industries Corporation Ltd.
59. Northern Coalfields Ltd.
60. Numaligarh Refinery Ltd.
61. ONGC Videsh Ltd.
62. P E C Ltd.
63. Pawan Hans Helicopters Ltd.
64. Projects & Development India Ltd.
65. Scooters India Ltd.
66. South Eastern Coalfields Ltd.
67. Tehri Hydro Development Corporation Ltd.
68. Tyre Corporation of India Ltd.
69. Uranium Corporation of India Ltd.
70. W A P C O S Ltd.
71. Western Coalfields Ltd.

Schedule - C

1. Andaman & Nicobar Islands Forest & Plantation Development Corporation Ltd.
2. Artificial Limbs Mfg. Corporation of India
3. Bengal Chemicals & Pharmaceuticals Ltd.
4. Bharat Petro Resources Ltd.
5. Bharat Refractories Ltd.
6. Bharat Wagon & Engineering Company Ltd.
7. Biecco Lawrie & Co. Ltd.
8. Broadcast Engineering Consultants India Ltd.
9. Central Cottage Industries Corporation of India Ltd.
10. Central Inland Water Transport Corporation Ltd.
11. Central Railside Warehouse Company Ltd.
12. Educational Consultants (India) Ltd.
13. FCI Aravali Gypsum & Minerals (India) Ltd.
14. Ferro Scrap Nigam Ltd.
15. Hindustan Antibiotics Ltd.
16. Hindustan Insecticides Ltd.
17. Hindustan Photo Films Manufacturing Company Ltd.
18. Hindustan Salts Ltd.
19. HMT Bearings Ltd.
20. HMT Chinar Watches Ltd.
21. Hooghly Dock and Port Engineers Ltd.
22. HSCC (India) Ltd.
23. Hotel Corporation of India Ltd.
24. Indian Renewable Energy Development Agency Ltd.
25. Jute Corporation of India Ltd.
26. Nagaland Pulp & Paper Company Ltd.
27. National Backward Classes Finance & Development Corporation.
28. National Film Development Corporation Ltd.
29. National Handicapped Finance & Development Corporation.
30. National Handloom Development Corporation Ltd.
31. National Instruments Ltd.
32. National Minorities Development & Finance Corporation
33. National Research Development Corporation of India.
34. National Safai Karamcharis Finance & Development Corporation.

35. National SC Finance & Development Corporation
36. National ST Finance & Development Corporation
37. National Seeds Corporation Ltd.
38. NEPA Ltd.
39. North Eastern Handicrafts & Handloom Development Corporation Ltd.
40. North Eastern Regional Agricultural Marketing Corporation Ltd.
41. Rajasthan Electronics & Instruments Ltd.
42. Richardson & Cruddas (1972) Ltd.
43. STCL Ltd.
44. Sponge Iron India Ltd.
45. State Farms Corporation of India Ltd.
46. Triveni Structurals Ltd.
47. Tungabhadra Steel Products Ltd.

Schedule - D

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

Other - uncategorised

1. Akaltara Power Ltd.
2. Air India Air Transport Services Ltd.
3. Air India Charters Ltd.
4. Air India Engineering Services Ltd.
5. Antrix Corporation Ltd.
6. Assam Ashok Hotel Corporation Ltd.
7. BEL Optronic Devices Ltd.
8. Balmer Lawrie Investments Ltd.
9. Bharat Immunological & Biologicals Corporation Ltd.
10. Bharatiya Nabhikiya Vidyut Nigam Ltd.
11. Bhartiya Rail Bijlee Company Ltd.
12. Bharat Petro Resources JDPA
13. Bihar Drugs & Organic Chemicals Ltd.
14. Birds, Jute & Exports Ltd.
15. Brushware Ltd.
16. Byrnihat Transmission Co. Ltd.
17. Certification Engineers International Ltd.
18. Coastal Karnataka Power Ltd.
19. Coastal Maharashtra Mega Power Ltd.
20. Coastal Tamil Nadu Power Ltd.
21. Donyi Polo Ashok Hotel Corporation Ltd.
22. East-North Interconnection Co. Ltd.
23. Export Credit Guarantee Corporation of India Ltd.
24. Fresh & Healthy Enterprises Ltd.
25. Hooghly Printing Company Ltd.
26. IDPL (Tamilnadu) Ltd.
27. IL Power Electronics Ltd.
28. India Infrastructure Finance Co. Ltd.
29. Indian Oil Technologies Ltd.
30. Indian Vaccine Corporation Ltd.
31. Instrumentation Control Valves Ltd.
32. Instrumentation Digital Control Ltd.
33. Jharkhand Integrated Power Ltd.
34. J & K Mineral Development Corporation Ltd.
35. Kanti Bijlee Utpadan Nigam Ltd.
36. Karnataka Trade Promotion Organisation
37. Kumarakuppa Frontier Hotels (P) Ltd.
38. Madhya Pradesh Ashok Hotel Corporation Ltd.
39. Maharashtra Elektrosmelt Ltd.
40. Millenium Telecom Ltd.
41. Narmada Hydroelectric Development Corporation Ltd.
42. National Informatics Centre Services Incorporated
43. North Karanpura Transmission Company Ltd.
44. NTPC Electric Supply Co Ltd.
45. NTPC Hydro Ltd.
46. NTPC Vidyut Vyapar Nigam Ltd.
47. Nuclear Power Corpn. of India Ltd.
48. Orissa Integrated Power Ltd.
49. PFC Consulting Ltd.
50. Pondicherry Ashok Hotel Corporation Ltd.
51. Punjab Ashok Hotel Company Ltd.
52. Ranchi Ashok Bihar Hotel Corporation Ltd.
53. REC Power Distribution Company Ltd.
54. REC Transmission Projects Co. Ltd.
55. Sambhar Salts Ltd.
56. Sethusamudram Corporation Ltd.
57. Talcher-II Transmission Company Ltd.
58. Tamilnadu Trade Promotion Organisation
59. Utkal Ashok Hotel Corporation Ltd.
60. Vignyan Industries Ltd.

List of CPSEs whose proposals have been cleared by BRPSE

Sl. No.	Name of the Administrative Ministry/ Department/CPSE	Broad gist of the recommendation of BRPSE
Department of Heavy Industry		
1.	Hindustan Salts Ltd., Jaipur, Rajasthan	Revival as a PSE
2.	Bridge & Roof Co. (India) Ltd., Kolkata	Revival as a PSE
3.	BBJ Construction Co. Ltd., Kolkata	Revival as a PSE
4.	Tyre Corporation of India Ltd., Kolkata	Revival as a PSE
5.	HMT Bearings Ltd., Hyderabad, AP	Revival as a PSE
6.	Praga Tools Ltd., Secunderabad, AP	Revival as a PSE
7.	Braithwaite & Company Ltd., Kolkata	Revival as a PSE
8.	NEPA Ltd., Nepa Nagar, MP	Revival through Joint Venture/disinvestment
9.	Richardson & Cruddas Ltd., Mumbai	Revival through Joint Venture/disinvestment
10.	Tungabhadra Steel Products Ltd., Bellary, Karnataka	Revival through Joint Venture/disinvestment
11.	Bharat Wagon & Engineering Co. Ltd., Patna, Bihar	Revival as a PSE
12.	Bharat Pumps & Compressors Ltd., Allahabad, UP	Revival through Joint Venture/disinvestment
13.	Cement Corporation of India Ltd., Delhi	Non-operating units may be closed. Other operating units will be revived as a PSE.
14.	HMT Machine Tools Ltd., Bangalore, Karnataka	Revival as a PSE
15.	Heavy Engineering Corporation Ltd., Ranchi, Jharkhand	Revival as a PSE
16.	Andrew Yule & Co. Ltd., Kolkata	Revival as a PSE
17.	Instrumentation Ltd., Kota, Rajasthan	Revival as a PSE
18.	Triveni Structurals Ltd., Allahabad, UP	Revival as a PSE
19.	HMT Ltd., Bangalore	Revival as a PSE
20.	HMT Watches Ltd., Bangalore	Revival as a PSE – Closure of Bangalore unit and transfer of Ranibagh unit to State Government before its closure

21.	Bharat Ophthalmic Glass Ltd., Durgapur, West Bengal	Closure
22.	Bharat Yantra Nigam Ltd.	Closure
23.	Bharat Heavy Plate & Vessels Ltd., Visakhapatnam, Andhra Pradesh	Revival through financial restructuring & taken over by BHEL
24.	Hindustan Cables Ltd., Kolkata	Revival through Joint Venture/disinvestment
25.	HMT Chinar Watches Ltd. , Jammu(Jammu & Kashmir)	Revival through either transferring to State Govt. of J & K or joint venture with any State / Central Govt. PSU/ Private Sector
Ministry of Textiles		
26.	British India Corporation Ltd., Kanpur, UP	Revival through Joint Venture/disinvestment
27.	National Textiles Corporation Ltd. & its subsidiaries, Delhi and other states	Revival of 15 mills as PSE units and 19 mills through Joint Venture
28.	National Jute Manufactures Corporation Ltd., Kolkata	Revival of as a PSE
29.	Elgin Mills Company Ltd.	Revival of as a PSE
Deptt. of Fertilizers		
30.	Madras Fertilizers Ltd., Manali, Tamil Nadu	Revival as a PSE
31.	Fertilizers & Chemicals Travancore Ltd., Kochi, Kerala	Revival as a PSE
32.	Brahmaputra Valley Fertilizer Corporation Ltd., Namrup, Assam	Revival as a PSE
Deptt. of Shipping		
33.	Central Inland Water Transport Corporation Ltd., Kolkata	Revival through Joint Venture/disinvestment
34.	Hindustan Shipyard Ltd., Delhi	Revival as a PSE
35.	Hooghly Dock & Port Engineers Ltd., Kolkata	Revival as a PSE
Deptt. of Chemicals & Petrochemicals		
36.	Hindustan Antibiotics Ltd., Pune, Maharashtra	Revival as a PSE
37.	Hindustan Organic Chemicals Ltd., Mumbai	Revival as a PSE
38.	Hindustan Insecticides Ltd., Delhi	Revival as a PSE

39.	Bengal Chemicals & Pharmaceuticals Ltd., Kolkata	Revival as a PSE
40.	Indian Drugs & Pharmaceuticals Ltd., Gurgaon, Haryana	Revival as a PSE
41.	IDPL (Tamil Nadu) Ltd., Chennai	Merger with IDPL
42.	Bihar Drugs & Organic Chemicals Ltd., Muzaffarpur, Bihar	Merger with IDPL
43.	Hindustan Fluorocarbons Ltd., Hyderabad, Andhra Pradesh	Revival as a PSE
	Ministry of Coal	
44.	Eastern Coalfields Ltd., Burdwan, W. Bengal	Revival as a PSE
45.	Bharat Coking Coal Ltd. Dhanbad, Jharkhand	Revival as a PSE
	Ministry of Mines	
46.	Mineral Exploration Corporation Ltd., Nagpur, Maharashtra	Revival as a PSE
47.	Hindustan Copper Ltd., Kolkata	Revival as a PSE
	Department of Scientific & Industrial Research	
48.	Central Electronics Ltd., Delhi	Revival as a PSE
	Ministry of Water Resources	
49.	National Projects Construction Corporation Ltd., Delhi	Revival as a PSE
	Ministry of Steel	
50.	MECON Ltd., Ranchi, Jharkhand	Revival as a PSE
51.	Bharat Refractories Ltd., Bokaro, Jharkhand & merger with SAIL	Revival through financial restructuring
52.	Hindustan Steelworks Construction Ltd., Kolkata	Revival as a PSE
	Deptt. of Agriculture & Co-operation	
53.	State Farms Corporation of India Ltd., Delhi	Revival as a PSE
	Ministry of Petroleum & Natural Gas	
54.	Biecco Lawrie Ltd., Kolkata	Revival as a PSE
	Ministry of Railways	
55.	Konkan Railway Corporation Ltd., Delhi	Revival as a PSE
	Ministry of Housing and Urban Poverty Alleviation	
56.	Hindustan Prefab Ltd.	Revival as a PSE

Appendix-IV

List of Operational Nodal Agencies

Sl. No.	Name of Agency
1.	Academy Suburbia, Kolkata
2.	Associated Chamber of Commerce & Industry of India (ASSOCHAM), Delhi
3.	Association of Lady Entrepreneurs of Andhra Pradesh, Andhra Pradesh, Hyderbad
4.	Central Institute of Plastic Engg. and Technology (CIPET) , Chennai
5.	CIPET, Bhubaneshwar
6.	CIPET, Amritsar
7.	CIPET, Guwahati
8.	Electronics Service & Training Centre, Ramnagar
9.	Indian Council of Small Industries, Kolkata
10.	Institute of Entrepreneurship Development, Patna
11.	Institute of Labour Development, Jaipur
12.	Kalinga School of Social Development, Bhubaneshwar
13.	Madhya Pradesh Consultancy Organisation, Bhopal
14.	MITCON, Pune
15.	National Institute of Micro, Small & Medium Enterprises, Hyderabad
16.	National School of Computer Education, Kolkata
17.	North India Technical Consultancy Organisation, Chandigarh
18.	U.P. Industrial Consultants Ltd., Kanpur

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