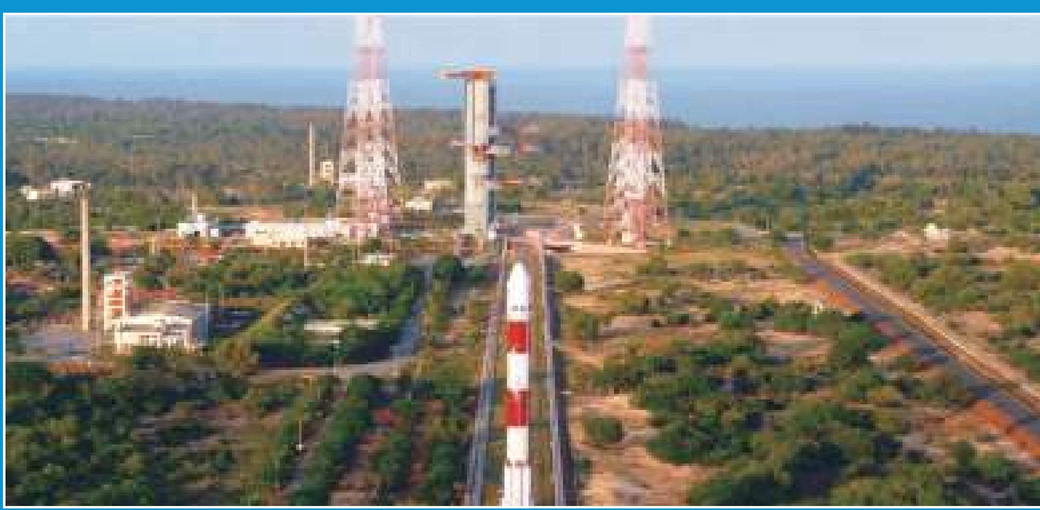
सत्यमेव जयते

Annual Report 2016-17

- Heavy Engineering
- Machine Tools
- Heavy Electricals
- Automobiles
- Public Sector Enterprises



Government of India

Ministry of Heavy Industries and Public Enterprises

सत्यमेव जयते

Annual Report
2016-17

Ministry of Heavy Industries and Public Enterprises

Government of India

Udyog Bhawan, New Delhi-110 011

Website : dhi.nic.in / dpe.nic.in

Content

DHI Annexure - (I-XI)

DPE Annexure - (1-11)

Overview of the Ministry of Heavy Industries and Public Enterprises

1.1 The Ministry of Heavy Industries and Public Enterprises comprise the Department of Heavy Industry and the Department of Public Enterprises. It functions under Minister, Heavy Industries and Public Enterprises. He is assisted by Minister of State for Heavy Industries and Public Enterprises. The Ministry promotes the development and growth of three sectors i.e. Capital Goods, Auto and Heavy Electrical Equipments in the Country provide administrative oversight to 31 Central Public Sector Enterprises (CPSEs) and 4 Autonomous Organizations.

A. Department of Heavy Industry (DHI)

1.2 The allocation of work of the Department of Heavy Industry entails promoting engineering industry viz. machine tools, heavy electrical, industrial machinery and auto industry besides the CPSEs under direct administrative oversight and 4 autonomous organizations. The list of CPSEs and their current status is given in the **Annexure-I(A).** The CPSEs under the Department are engaged in manufacturing and in consultancy and contracting services. The CPSEs under the Department manufacture a wide range of products viz; Boilers, Gas/ Steam/Hydro turbines, Industrial machinery, turbo generators, three wheelers, tractors and consumer products such as Paper, Salt and Watches. The Ministry also looks after the machine building industry and caters to the requirements of equipment for basic industries such as steel, mining, non-ferrous metals, power, fertilizers, refineries, petrochemicals, shipping, paper, cement, sugar, etc. The Department supports the development of a range of intermediate engineering products like castings, forgings, diesel engines, industrial gears and gear boxes. The Department also administers:

i. Automotive Research Association of India (ARAI), set up in 1966, and ARAI – Forging Industry Division, (ARAI-FID) Pune, Maharashtra, set up in 2006.

ii. Fluid Control Research Institute (FCRI), Palakkad, Kerala set up in July 1987, to cater to the needs of the flow industry for calibration,

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

iv. National Automotive Board (NAB) set up in 2012 to steer, coordinate and synergize all efforts of the government in the automotive sector.

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 achieving their growth plans through support for 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 assisted three Joint Secretaries, an Economic Adviser, Directors/Deputy Secretaries and other Technical officers. The Department is also supported by Integrated Finance Wing headed by the Additional Secretary and Financial Adviser. The overall sanctioned strength of the Department (as on 01.01.2017) is 250. The organ gram chart of the Department is at **Annexure–II.**

B 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 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 in the Ministry of Finance. Subsequently, as a result of the reorganization of the Ministries/ Departments of the Union Government in September, 1985, BPE was made part of the Ministry of Industry. In May, 1990, BPE was made a full-fledged Department 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 the Central Public Sector Enterprises (CPSEs) and formulates policy pertaining to CPSEs. It lays down, in particular, policy guidelines on performance improvement and evaluation, autonomy and financial delegation and personnel management in CPSEs. It furthermore collects and maintains information on several areas in respect of CPSEs.

1.7 In order to fulfilling its role, the Department Coordinates with other Ministries, CPSEs and concerned organizations. As per the Allocation of Business Rules of the Government, the following subjects have been allocated to the DPE:-

- Residual work relating to erstwhile Bureau of Public Enterprises including Industrial Management Pool.
- Coordination of matters of general policy affecting all Public Sector Enterprises.
- Evaluation and monitoring the performance of Public Sector Enterprises, including the Memorandum of Understanding mechanism.
- Matters relating to Permanent Machinery of Arbitration for the Public Sector Enterprises.
- Counseling, training and rehabilitation of employees in

Central Public Sector undertakings under Voluntary Retirement Scheme.

- Review of capital projects and expenditure in Central Public Sector Enterprises.
- Measures aimed at improving performance of Central Public Sector Enterprises and other capacity building initiatives of Public Sector Enterprises.
- Rendering advice relating to revival, restructuring or closure of Public Sector Enterprises including the mechanisms there for.
- Matters relating to Standing Conference of Public Enterprises.
- Matters relating to International Center for Public Enterprises.
- Categorisation of Central Public Sector Enterprises including conferring 'Ratna' status.
- Survey of Public Enterprises.

1.8 Department of Public Enterprises is headed by a Secretary to the Government of India. The department has a sanctioned strength of 123 officers/personnel. The organizational structure of DPE is at **Annex-1**.

Department of Heavy Industry (DHI)

Vision

To have a globally competitive, growth oriented and profitable Heavy Industry; and

self- reliant and growth oriented CPSEs under the Department.

Mission

To facilitate Auto, Heavy Electrical and Capital Goods Sectors to be globally competitive, growth oriented and profitable and to provide all necessary support to the CPSEs in order to improve their overall performance.

Chapter

1 Introduction

1.1 Performance of Industry

1.1.1 Government has taken numerous steps to boost industrial development, capital formation and employment generation in the country. These, inter-alia, include, 'Make in India', 'Startup India' initiatives and 'Ease of Doing Business'. Steps taken to improve ease of doing business include simplification and rationalisation of existing rules and introduction of information technology, setting up of an Investor Facilitation Cell, launch of e-biz Portal and liberalising policy for industrial license for defence industries. Foreign Direct Investment (FDI) policy and procedures have been simplified and liberalised progressively. The total FDI inflows received during 2015-16 is US$ 55.46 billion, an increase of 23%, compared to the US$ 45.15 in 2014-15. Government has taken up a programme of building pentagon of industrial corridors across the country with an objective to provide developed land and quality infrastructure for development of industrial townships.

1.1.2 As per the National Accounts statistics, the Gross Value Added (GVA) in the industrial sector has recorded a growth of 7.4% in 2015-16, higher than the growth in previous three financial years. Within industry, the Gross Value Added (GVA) in the manufacturing sector has recorded a growth of 9.3% in 2015-16, much higher than the 5-6% growth range in the previous three financial years (Table-1). During the first two quarters of 2016-17, GVA in manufacturing has registered growth rate of 9.1 percent and 7.1 percent respectively.

Table 1: Growth Rate of GVA at basic price (calculated at Constant Prices) (2011-12) prices (in %)

Industry	2012-13 (NS) *	2013-14 (NS) *	2014-15 (NS) #	2015-16 (PE)
I. Agriculture	1.5	4.2	-0.2	1.2
II. Industry	**3.6**	**5.0**	**5.9**	**7.4**
Mining & quarrying	-0.5	3.0	10.8	7.4
Manufacturing	**6.0**	**5.6**	**5.5**	**9.3**
Electricity, gas &water supply	2.8	4.7	8.0	6.6
Construction	0.6	4.6	4.4	3.9
III. Services	8.1	7.8	10.3	8.9
GVA at basic prices	5.4	6.3	7.1	7.2
*: Second Revised Estimates ;#:First Revised Estimate; NS: New Series Estimates ; PE: Provisional Estimate				

Source: Central Statistics Office.

1.1.3 Industrial performance measured in terms of Index of Industrial Production (IIP), with base year 2004-05, declined marginally by 0.3% in the first seven months of the current year i.e April-October, 2016-17. During this period, the Manufacturing and Mining sectors declined by 1.0% and 0.2% respectively. The Electricity sector, however, recorded a growth of 4.6%.

1.1.4 As per use-based classification of IIP, Basic goods, which account for more than 45 percent of the weight in the IIP, recorded a growth of 4.0 percent during the period April-October, 2016-17 over the corresponding period in 2015-16. Intermediate goods and consumer goods also registered a growth of 3.5 percent and 1.2 percent respectively during April-October, 2016-17. The Capital goods sector, however, declined by 22.1 percent during this period .

Growth Rate of Index of Industrial production (IIP) (in %)
(Base:2004-05)

Sector/Groups	Weight (%)	2014-15	2015-16 2015-16	Apr-Oct 2016-17	Apr-Oct
1	2	3	4	5	6
Sector classification					
Mining	14.2	1.5	2.2	2.2	-0.2
Manufacturing	75.5	2.3	2.0	5.1	-1.0
Electricity	10.3	8.4	5.7	5.2	4.6
Overall IIP	100.0	2.8	2.4	4.8	-0.3
Use Based classification					
Basic goods	45.7	7.0	3.6	4.5	4.0
Capital goods	8.8	6.4	-2.9	9.0	-22.1
Intermediate goods	15.7	1.7	2.5	2.5	3.5
Consumer goods	29.8	-3.4	3.0	4.5	1.2
Durables	8.5	-12.6	11.3	11.7	6.4
Non-durables	21.3	2.8	-1.8	0.1	-2.5
Overall IIP	100.0	2.8	2.4	4.8	-0.3

Source: Central Statistics Office.

1. 2 The Department of Heavy Industry has also been allocated the following subjects/Industrial Sectors:

(a) Heavy Engineering Equipment and Machine Tools Industry

(b) Heavy Electrical Engineering Industry

(c) Automotive Sector, including Tractors and Earth Moving Equipment.

1.3 19 Industrial Sub-sectors under the 3 brand sector in section 1.2 are as under:-

(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 and 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 CPSEs under the Department of Heavy Industry:

1.4.1 There are 25 CPSEs under the Department engaged in manufacturing, consultancy and contracting services.

1.4.2 The total investment (Gross Block) in the 25 operating CPSEs under the Department was ₹ 18976.34 crore, as on 31.3.2016, as per details given at **Annexure-III**. The total number of employees in these CPSEs is 71572. The number of SC, ST, OBC & PWDs employees is 13305, 8083, 22543 & 1172 respectively as per details at **Annexure-IV.**

1.4.3 Out of the 25 CPSEs, 10 are making profit and the remaining 15 are incurring losses. However, on an aggregate basis, 25 CPSEs of DHI show a net profit before tax of (-) ₹ 5879.75 crore in 2015-16. The target for 2016-17 is as under:

(₹ crore)

	2015-16 (Actual)	2016-17 (Target)
Production	32641.89	36826.89
Profit (+)/Loss(-)	(-) 5879.75	(-)925.73

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

1.4.4 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, difficulty to adjust to changing market products/technology/competition, 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.**

1.4.5 As on 30.09.2016, the order book of CPSEs, under the Department stands at ₹1,37,718.52 crore. (**Annexure -VIII**). Major exporting CPSE is BHEL, and details of export performance of CPSEs under DHI are given at **Annexure-IX.** Details of Government equity, net worth and accumulated profit /loss of these CPSEs are given at **Annexure X**. Dividend Paid by the CPSEs under the Department of Heavy Industry for the year 2015-16 are :

BHEL	₹ 98.00	crore
EPI	₹ 10.80	crore
BBJ	₹ 13.32	crore

1.5 Steps taken by DHI for revival/ restructuring/Disinvestment/closure of CPSES:

1.5.1 There are 25 CPSEs under the Department of Heavy Industry engaged in manufacturing, consultancy and contracting services. DHI has been undertaking appraisals of each loss making CPSE to assess the prospects of revival. As a part of this exercise, the loss making CPSEs having the potential of turnaround are revived and those found chronically sick are disinvested or closed down after payment of due compensation to employees. Steps taken by DHI so far in this regard are as follows:

1.5.2 The Government, on 22.12.2015, approved closure of Tungabhadra Steel Products Ltd., Hospet, Karnataka by offering an attractive VRS/VSS for their employees and disposal of movable & immovable assets and liquidation of outstanding liabilities. All its employees have availed VRS and been relieved on 09.03.2016. Further action for closure of the company is in progress as per Government's approval.

1.5.3 The Government, on 6th January, 2016 approved closure of HMT Watches Ltd., HMT Chinar Watches Ltd., and HMT Bearing Ltd. By offering attractive VRS/VSS package to their employees and disposal of their movable and immovable properties as per the Govt. Policy. Accordingly, the process for disposal of movable and immovable assets of these companies is in progress.

1.5.4 The Government, on 27th October, 2016 approved closure of Tractor Unit of HMT Ltd. at Pinjore by offering of attractive VRS/ VSS package to their employees.

1.5.5 The Government, on 28.09.2016, approved closure of Hindustan Cables Ltd. by offering attractive VRS/VSS package to their employees and disposal of their movable and immovable properties as per the Govt. Policy. Accordingly, the action for closure of the company is in progress.

1.5.6 The Government, on 30.11.2016, has approved closure of Kota Unit of Instrumentation Ltd. and transfer of Palakkad Unit of Instrumentation Ltd. to Government of Kerala. In this connection, the Government has approved attractive VRS/VSS package at 2007 notional pay scale to employees of Kota Unit of Instrumentation Ltd. including the payment of pending salary, statutory dues etc., which amount to approximately ₹ 438 crore.

1.5.7 The Government, on 21st September, 2016 has approved the proposal for enabling Richardson & Cruddas Co, Ltd. to come out of the purview of Board for Industrial and Financial Reconstruction (BIFR). For this purpose, Government approved the conversion into equity of the Government of India loan of ₹ 101.78 crore given to the Company, along with the interest amounting to ₹ 424.81 crore accrued on this loan. The Government further approved in principle, the strategic disinvestment of Nagpur and Chennai units of this Company and shifting of operations from Mumbai land to other locations of Company. However, the Company's land at Mumbai will be converted from lease hold to "Occupation Class II" so as to enable the company to identify the best use of this piece of land for optimal utilization as per Government guidelines.

15.8 The Government, on 27th October, 2016 approved the following:

- 100% disinvestment of Bridge & Roof Co. Ltd., Scooters India Ltd. and Bharat Pumps & Compressors Ltd.
- Disinvestment of 100% shareholding of the concerned CPSE in Hindustan Newsprints Ltd. to strategic buyer through two stage auction process.
- Units of CCI to be disinvested where it is legally permissible to strategic buyer through two stage auction process.

Necessary action for implementation of above Government's decision dated 27th October, 2016 is underway in this Department.

1.6 Autonomy to CPSEs/Navratnas and Miniratnas

BHEL is a Maharatna CPSE in the Department. Maharatna CPSEs have been provided greater autonomy in respect of capital expenditure, formation of strategic alliance and formulation of HRD policies etc. Besides BHEL, a Navratna Company, seven CPSEs under DHI namely BPCL, B&R, EPI, HMT (I), HNL, HPC, and REIL have been categorized as Miniratnas. Miniratna CPSEs have also been empowered with certain enhanced delegation of powers.

1.7 Memorandum of Understanding (MOU)

With a view to giving greater autonomy to the public sector enterprises and make them accountable for achieving their objectives, all the CPSEs under the Department signed MOUs with Government of India/ Holding companies for the year 2016-17.

1.8 Plan Programmes of Department of Heavy Industry:

During the 12th Five Year Plan (2012-17) an outlay of ₹ 22,223.32 crore with a Gross Budgetary Support of ₹ 4,680 crore has been allocated and the following Central Sector Schemes have been taken up in the Department. The details of GBS of 12th plan allocation and expenditure given below:

(₹In crore)

Year	GBS	Revised	Actual
2012-13	553.00	406.66	404.03
2013-14	585.00	504.92	498.29
2014-15	800.00	685.00	590.97
2015-16	669.88	300.00	157.19
2016-17	300.00	632.91	468.54 Up to 31.12.2016

1.8.1 National Automotive Testing and R&D Infrastructure Project (NATRIP)

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 for setting up of world-class automotive testing and homologation facilities in India, with an initial investment of ₹ 1718 cr. which was subsequently revised to ₹ 2286.06 crore in April 2011 and to ₹ 3727.30 crore in July 2016. The proposed principal facilities are in the advanced stages of completion in the three automotive hubs of the country in the North, the South, 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.

(iv) Removing the crippling absence of basic product testing, validation and development infrastructure for automotive industry.

1.8.2 National Capital Goods Policy

A National Policy on Capital Goods has been brought out by the Government in 2016 under 'Make in India' initiative which envisages making India as one to the top capital goods producing nations by raising export level and improving technological depth. Detailed policy is available in the Department of Heavy Industry website dhi.nic.in. Key recommendations of the Policy are:

1) Integration of major capital goods sub-sectors like machine tools, textile machinery, earthmoving and mining machinery, heavy electrical and power equipment, plastic machinery, process plant equipment, dies, moulds and press tools, printing and packaging machinery and food processing machinery as priority sectors under 'Make in India' initiative.

2) Creating an enabling scheme as a pilot for 'Heavy Industry Export & Market Development Assistance Scheme' with a view to enhance the export of Indian made capital goods.

3) Strengthening existing 'Scheme on Enhancement of Competitiveness of Capital Goods' by increasing budgetary allocation and scope by adding a set of components including technology, skill & capacity building, user promotional activities, green engineering and energy, advanced manufacturing and cluster development.

4) Launching a Technology Development Fund under PPP model to fund technology acquisition, transfer of technology, purchase of IPRs, designs & drawings as well as for commercialization of such

technologies of capital goods.

5) Creating a 'Start-up Center for Capital Goods Sector' shared by DHI and CG industry/industry association in 80:20 ratio to provide an array of technical, business and financial support resources and services to promoting start-ups in both the manufacturing and services space. These services should focus on Pre-incubation, Incubation and Post-Incubation phases of a start-ups growth to ensure that a robust foundation is established.

6) Mandatory Standardization which includes, inter alia, defining minimum acceptable standards for the industry and adoption of International Organization for Standardization (ISO) standards should apply in the absence of other standards. To institute formal development program for promoting and framing Standards with Standards Developing Organizations (SDOs) including Bureau of Indian Standards (BIS), international standard bodies, test/ research institutions and concerned industry/industry associations.

7) Up gradation development, testing and certification infrastructure such as Central Power Research Institute (CPRI), and set up more CMTI like institutes to meet the requirements of major sub-sectors of capital goods.

8) Skill development: Developing a comprehensive skill development plan/scheme with Capital Goods Skill Council and to set up 5 regional State-of-the-Art Greenfield Centers of Excellence for skill development of CG Sector.

9) Providing schemes for enhancing competitiveness through a cluster approach, especially for CG manufacturing SMEs with thrust on critical components of competitiveness such as Quality management, Plant maintenance management, Energy management, Cost management, Human Resource management and prevention of corrosion with the Government support.

10) Modernization of the existing CG manufacturing units, especially, SMEs by replacing obsolete machines with the modern, computer controlled and energy efficient machineries across capital goods sub-sectors, through a scheme based on capital subsidy to promote manufacturing of quality products.

1.8.3 Scheme for North Eastern Region (NPPC, CCI &AYCL)

Under the Department of Heavy Industry, the following CPSEs/Units are situated in the North Eastern Region:-

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

(ii) Nagaland Pulp & Paper Company Ltd. (NPPC), Nagaland.

(iii) Cement Corporation of India Ltd. (CCI), (Bokajan Unit), Assam.

(iv) Andrew Yule & Company Ltd. (AYCL), (Tea Gardens), Assam.

These CPSEs/Units are engaged in the manufacturing of Paper, Cement and Tea. As per the policy of the Government, 10% of the mandatory budget of the Department is being allocated for the development of North Eastern. During the financial year 2016-17, ₹ 50.01 crore has been allocated to HPC (CPM).

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

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

Chapter

2

CPSEs under DHI

This Department administers 25 Public Sector Enterprises (CPSEs). These CPSEs have played a vital role in the industrial development of the country. Ranging from heavy electrical engineering equipment, the CPSEs cater to diverse sectors of the economy including civil construction, heavy machinery, precision tools, consultancy, tea plantation etc. A brief write up on the CPSEs under the Department is given below.

2.1 Andrew Yule & Co Ltd. (AYCL)

Andrew Yule & Co Ltd. (AYCL) has achieved production worth ₹ 285.92 crore against the MoU target of ₹ 300.09 crore. Sales worth ₹ 261.74 crore against the target of ₹ 269.33 crore and Net Profit (PBT) of ₹ 36.23 crore against the MoU target of ₹ 35.50 crore upto November, 2016. AYCL has achieved 95.28% of the production target and 97.18% of the sales target up to the month of November, 2016. The order book position is ₹ 161.45 crore up to the month of November, 2016 against the target of ₹ 96.50 crore. The CPSE has registered a positive growth in production and PBT over the corresponding period in the previous year.

2.2 Hooghly Printing Company Ltd.

Hooghly Printing Company Ltd. (HPCL) is a profit making wholly-owned Subsidiary of Andrew Yule & Co. Ltd (A Govt. of India Enterprise). The Companies engaged in printing business involving printing assignments like multi coloured, newsletter, leaflets, folders, calendars, books etc. The production and Net Profit (PBT) of the Company up to November, 2016 are worth ₹ 7.96 crore and ₹ (-) 0.59 crore respectively against the corresponding production target of ₹ 9.26 crore and the Net Profit target of ₹ (-) 0.45 crore. There has been a negative growth of 0.17% in production compared to that achieved during the corresponding period in the previous fiscal.

2.3 Bharat Heavy Electricals Ltd. (BHEL)

BHEL a Maharatna CPSE is an integrated power plant equipment manufacturer and one of the largest engineering and manufacturing companies of its kind in India. The company is engaged in the design, engineering, manufacture, construction, testing, commissioning and servicing of a wide range of products and services for the core sectors of the economy, viz. Power, Transmission, Industry, Transportation, Renewable Energy, Oil & Gas and Defence with over 180 products offerings to meet the needs of these sectors. BHEL has been the solid bedrock of India's Heavy Electrical Equipment industry since its evolution in 1964.

BHEL has a widespread network of 17

manufacturing units, 2 repair units, 4 regional offices, 8 service centres, 1 subsidiary, 6 overseas offices, 6 joint ventures, 15 regional marketing centres and current project execution at more than 150 project sites across India and abroad corroborates the humungous scale and size of its operations.

BHEL is one of the few companies in the world having the capability to manufacture the entire range of power plant equipment and has proven turnkey capabilities for executing power projects from concept-to-commissioning. The power generation sector comprises thermal, gas, hydro and nuclear power plants.

In the Industry Segment, diversification in Transmission, Transportation, Defence, Renewables and Water Business is the strategy adopted to maintain a balanced portfolio of offerings.

Over the years, BHEL has made significant contributions in Defence sector for Naval guns and IPMS (Integrated Platform Management Systems). BHEL is actively pursuing the large opportunities in Naval and Field Guns and Submarines, etc opening up with the 'Make in India' initiatives in the Defence Sector by partnering with Global OEMs.

Super Rapid Gun Mount (SRGM) for Indian Naval Ships at HEEP, Haridwar

BHEL's greatest strength is its highly skilled and committed workforce of about 42,000 employees who have been the cornerstones of BHEL's journey of excellence.

Performance Highlights

The Company has achieved the turnover of ₹ 26587 crore in 2015-16.

Profit Before Tax for the year 2015-16 stood at ₹ (-) 1477 crore and Profit After Tax for the year stood at ₹ (-) 913 crore.

Value addition for the year 2015-16 stood at ₹ 8382 crore representing as 33.85% of Gross Turnover Net of Excise. The value added per employee is ₹ 19.86 Lakh in the year 2015-16.

Bharat Heavy Electricals Limited (BHEL) has paid a final equity dividend of 20% for fiscal 2015 - 16. In value terms, the total dividend paid for fiscal 2015-16 amounts to ₹ 98 Crore.

Dividend cheque being presented to Hon'ble Union Minister for Heavy Industries and Public Enterprises by CMD, BHEL.

Order Booking

BHEL has received orders worth ₹ 43,727 Crore - the highest in the last five years, with 42% growth over 2014-15.

Major orders received during 2015-16

Power Sector

Power Sector secured orders worth ₹ 38,529 Crore, for 9,221 MW of power projects, with a market share of 74% against previous five years average of 66%.

Major Orders received are:

- Largest ever order in Indian Power Sector valued at ₹ 17,950 Cr. for 5x800 MW TSGENCO/ Yadadri TPS on EPC basis
- Orders for 1x800 MW Vijaywada & 1x800 MW Krishnapatnam from APGENCO & APPDCL respectively
- Order for country's first private sector power project - 1x525 MW MEIL / Tuticorin Stage IV in last 4 years.
- Two supercritical orders from TANGEDCO viz. 1x800 MW North Chennai Stage III and 2x800 MW Uppur
- Three major orders of 765 kV substations under stiff international competitive bidding for the National Green Energy Corridor project and first commercial order for 400 kV GIS.

  BHEL has secured orders for 10 nos. TG and 12 nos. SG for supercritical sets, making cumulative Supercritical technology – order basket to 41 TG & 48 SG.

Industry Sector

BHEL Industry Sector bagged orders worth ₹ 5125 crore in 2015-16 for a wide variety of products & systems in Captive Power, Rail Transportation, Power Transmission, Oil & Gas, Renewable Energy & Water Business and other industrial sectors from different customers.

Major orders received during the year are:

- First Canal top Solar PV project order for 1 MW received in the state of Andhra Pradesh.
- Largest value order received from Diesel Modernization Works, Patiala for 61 nos. of Traction Alternator type TA10106CY with Auxiliary Generator, PTU, AMR etc.
- Largest value orders received from Diesel Locomotive Works, Varanasi for 411 nos. of Traction Alternator type TA9901 for HHP locomotive.
- Largest quantity order received from JSW Steel Limited, Bellary for 5 nos. 700 HP Twin Power Pack Diesel Electric Shunting locomotives.
- 129 nos. Power Transformers & Reactors translating to about 14000 MVA secured.
- Order received from East Coast Railways (ECOR) for 6 x 30.24 MVA, 132 kV Traction transformers. Re-entry into Indian Railways' traction transformers segment after a gap of 10 years through Competitive bidding.
- Order received from M/s NHPC for 400 kV GIS bay at 3X180 MW Chamera-I HEP in Himachal Pradesh. This is the first commercial order for BHEL make 400 kV GIS.
- Three major orders for 765kV Substations received from M/s Power Grid under stiff International Competitive bidding for the first National Green Energy Corridor project.

Exports

Major orders received are:

- First ever order for motors secured from Ensival Moret Belgium S.A, Belgium. (Entry into new country)
- First ever order for motor secured from Cimentos de Mozambique group, Mozambique. (Entry into new country)
- First ever order for motor after a gap of 9 years secured from M/s Qatrana Cement). (New product in existing market)

Major orders received during 2016-17 upto Sep'16

Power Sector

Power Sector booked orders worth ₹ 3304 crore for supply and installation of generation equipment upto Sep'16.

BHEL secured EPC order for 1x250 MW Rourkela II Expn from NTPC-SAIL Power Company Private Limited (NSPCL) for ₹ 1,612 Cr.

Industry Sector

BHEL bagged orders worth Rs. 1900 crore for a wide variety of products and systems.

Major orders received are:

- EPC of 65 MW SPV plant i.e. highest rating SPV order ever received by BHEL from NLC Neyveli.
- EPC of 3 x 10 MW SPV plants at Mejia, Santaldih and Chharrah, West Bengal from WBSEDCL.
- EPC of 15 MW Grid connected SPV Plant at Ordnance Factory Medak from BEL-SECI.
- 166 nos. Traction Alternator type TA 9901 from DLW, Varanasi.
- First major order secured for 32 sets of IGBT based Hotel Load Converters from CLW, Chittaranjan.
- 45 sets 6531 KVA 3 ph Transformer from CLW, Chittaranjan.
- 34 sets MEMU Traction equipments from RCF, Kapurthala.
- 128 nos. 3-ph Traction Motor type 6FrA-6068 from CLW, Chittaranjan.
- 33 nos. Traction Alternator type 9901AZ from DLW, Varanasi.
- Development order for 10 sets AC-AC Traction System for 4500 HP DE loco from DLW, Varanasi.

Exports

Major orders include:

- Maiden orders for motors from SCAMCEM, Norway. (Entry into new market)
- Orders received for products and after sales segments from different parts of the world, which include Bangladesh, Belarus, Belgium, Bhutan, Indonesia, Iraq, Kazakhstan, Oman, Sudan & Vietnam.

Power Capacity Addition

In 2015-16 BHEL commissioned/ synchronized an all-time high 15,059 MW of power generation equipment, up by 26% from the previous year. With this, the worldwide installed base of power generating equipment supplied by BHEL has exceeded 1,70,000 MW.

This includes capacity addition by utility projects aggregating to 13,061 MW, up by 23% against the capacity addition target set by the Ministry of Power and 59% more than the achievement of previous year.

BHEL maintained its lion's share of 55% in the country's total installed capacity of 2,65,598 MW comprising coal, gas, diesel, hydro and nuclear sets (excluding renewables and based on original rating of the plants). 58 % of the country's total generation of 896 BUs from thermal utility sets (coal based) was contributed by BHEL supplied sets, testifying superior performance of BHEL sets

Hon'ble PM dedicates three BHEL-commissioned Hydro Electric Projects to the nation at HP

2,980 MW (including three supercritical sets) was added during 2015-16 under the Power Development Program of Uttar Pradesh State by BHEL, which is a landmark achievement.

BHEL has achieved capacity addition of 2180 MW and in addition has synchronised 1650 MW during the period April' 16 to September'16.

Other Significant Achievements

During 2015-16, BHEL achieved following awards:

- 10 Vishwakarma Rashtriya Puraskars to BHEL employees for their innovative suggestions leading to cost reduction, improvement in quality, productivity and working conditions, etc.
- National Safety Award to BHEL's Tiruchirappalli unit for outstanding achievements in terms of longest accident free period and lowest accident frequency rate at their works.
- CBIP Award for Best Power Equipment Manufacturing Organisation for outstanding contribution to the development of the power sector including power generation, transmission and renewable energy from the Central Board of Irrigation & Power.
- India Pride Award 2015-16 for Excellence in Heavy Industries from the 'Dainik Bhaskar' group
- BHEL was awarded the Best Overall Performance Award at the Governance Now PSU Award 2015. BHEL bagged three more awards in the category of Technology Adoption, Research and Innovation and CSR Initiatives.
- DSIJ Award 2015 for the Most Efficient Maharatna PSU 2015 won by BHEL for the 7th successive year
- Top PSU Award 2015 in the Heavy Engineering category from Dun & Bradstreet India
- Top Case Study Award at the SCOPE International HR Summit, 2016 for development and implementation of online Training Needs Identification
- CMD, BHEL was felicitated at the 2nd annual convocation of Indian Institute of Engineering Science and Technology (IIEST),

Shibpur. He also delivered the convocation address 'Accelerating manufacturing through innovation'

- Mr. Amitabh Mathur, Director (IS&P), was felicitated with the Distinguished Service Award by DCE-DTU Alumni Association

Some of the major achievements are:-

- Hon'ble Union Minister of External Affairs, Smt. Sushma Swaraj and the Hon'ble Union Minister of Water Resources, River Development and Ganga Rejuvenation, Sushri Uma Bharati felicitated CMD, BHEL for its role in the Afghan-India Friendship Dam.

- The Indian Chamber of Commerce (ICC) confers 'PSE Excellence Awards for Human Resource Management Excellence and for R&D, Technology Development & Innovation' on Director(HR), BHEL.

2.4 BHEL- Electrical Machines Limited

BHEL-EML is a subsidiary of BHEL, formed in 2011 as a joint venture between BHEL, and Government of Kerala. The focus area identified is to manufacture various rotating electrical machinery like Alternators, Motors, etc. and also to integrate its alternators providing the customers with Diesel generator sets.

Currently BHEL-EML manufactures and markets Diesel Generator (DG) sets as well as Alternators upto 1500KVA capacity, and Induction Motors in the range of 37 kW – 160 kW.

The Company caters Indian Railway (with Train Lighting Alternators, Rectifier Regulating Units, Power Car DA Sets and Traction Alternators) besides standby generators to various power stations.

Financial Performance

In the financial year 2015-16, the Company has recorded a turnover of ₹ 4095.59 Lakhs.

The Company has recorded loss of ₹ 2.98 crores in 2015-16.

Significant Achievements

Major Achievements 2015-16

The major orders executed under the reporting period are as below-

Railways- Power cars

BHEL-EML has executed 79 numbers of 500 KVA DA Set for Power Car.

Alternators

BHEL-EML has supplied 193 numbers of Train Lighting alternators to Indian Railway and 64 numbers of General Purpose Alternators to various other customers.

<u>DG Set for Self-propelled Accident Relief Train (SPART)</u>

The Company has supplied 16 numbers of DG Sets for SPART.

Major Achievements 2016-17 upto Sep'16

The Company had confirmed orders worth ₹ 2645 Lakhs as on 01st April 2016, which is approx. 45% of the total budget target for the current financial year. The current order book (pending execution) is ₹ 3613 Lakhs.

Despite scarcity of the working capital, the company has executed almost 30% of the total budget target for the year.

In line with the 'Revival Plan' of the Company, following products/ diversified products have been planned and are being executed -

a) String Monitoring Unit for Solar Power Plants

b) Aux. Generator (18 kW) for Diesel Locomotive Works, Varanasi

c) Traction Alternator for 1600 HP DEMU for Indian Railway

d) System for Electric Vehicles (EV) for Green Energy Mass Transit System

e) Permanent Magnet (PMG) Alternator for Railway Applications

f) Cyclo/ Rotary Converter (60 kVA) for Strategic (Defense) Applications

g) Marine Alternator (490 kW) for Strategic (Defense) Applications

h) Electronic Rectifier cum Regulator Unit (ERRU) for Railway applications

As a part of National Electric Mobility Mission 2020, BHEL EML has already submitted a Project/ Proposal on Electric Mobility to the Department of Science and Technology (DST), Government of India, with a request for estimated grant of INR 50.66 Crore. The proposal is being taken up with the Department concerned. Proposals for capability demonstration of Electric Vehicles in typical routes (consisting of planes, inclines and stop/start traffic situations) are submitted to various State Governments (Viz., in Kochi-Munnar Sector in Kerala, Coimbatore-Ooty Sector in Tamil Nadu and Jaipur-Udaipur Sector and Jaipur City Service in Rajasthan), which are under active consideration.

Export Plans

Alternators for micro Hydel projects exported to Nepal. There are indirect exports through Indian Customers (e.g. RITES to various foreign railways). Similar indirect Exports are planned through Toshiba India for their ultimate export for Micro Hydel projects around the world.

Social Responsibilities

The Company is providing apprentice training to various engineering students (Ranging from ITI to Post Graduates) in addition to short term (Summer) trainings on regular basis as a part of its social responsibility.

BHEL-EML also has a sustainable afforestation program in its premises to keep the environment green.

2.5 Braithwaite, Burn & Jessop Construction Company Limited.

The Braithwaite Burn & Jessop Construction Company Ltd. (BBJ) was incorporated on 26.01.1935 and became a 'Government company' consequent upon transfer of its entire share to erstwhile Bharat Bhari Udyog Nigam Ltd. (BBUNL), and became a wholly owned subsidiary of BBUNL. The main objects of the Company are to carry on the business of constructional engineers, mechanical engineers, public works and general contractors, manufacturers and dealers in bridges and steel frame building and iron structures of all kinds etc.

Consequent to the order of the Government of India that The Company (BBJ) as the transferor company was merged with Bharat Bhari Udyog Nigam Ltd., as the transferee company w.e.f. 10.07.2015. Further, BBUNL renamed as The Braithwaite Burn and Jessop Construction Co., Ltd.

(BBJ) w.e.f. 18.11.2015. It has now been categorized as Schedule 'C' CPSE. No. of regular employees in BBJ is 117.

BBJ is profit making CPSE and has paid dividend amounting to ₹ 13.32 crore for the year 2015-16. The turnover of Company in the year 2015-16 was 148.72 cr and Net profit after tax was 44.41 crore. BBJ has completed supply, fabrication and erection of 4 Km long Rail cum Road Bridge over river Ganga at Munger, Bihar for east Central Railway. The bridge was inaugurated by Hon'ble Prime Minister of India on 12.03.2016. BBJ received "The Economic Times Best Infrastructure Brands 2016" award from the Times of India group for various prestigious Bridge construction in India. BBJ received Utkrista Rajbhasa Shree" Shield Samman in an "Official Language Conference" held on 12.08.2016 under the auspices of Kendriya Sachivalya Hindi Parishad, Delhi. The Company is also actively engaged in Corporate Social Responsibility (CSR) by spending fund for Contribution of Swachh Bharat Kosh for construction of toilet, health care and education.

2.6 Bharat Pumps & Compressors Ltd.

Bharat Pumps & Compressors Ltd. (BPCL) was incorporated in 1970 with the manufacturing facility at Naini, Allahabad in U.P. The company is engaged in manufacture and supply of heavy duty pump & compressors and high pressure seamless and CNG gas cylinder/cascades to cater to the needs of sector like oil exploration and exploitation, refineries, petro-chemicals, chemicals and fertilizers and downstream industries.

The Company is accredited with Integrated Management System Certification having ISO 9001-2000, ISO 14001:2004 and OHSAS 18001-2007. The company is also accredited with API 7K license or manufacturing Slush Pump Components.

BPCL was sanctioned a revival package in December, 2006. The company which was earlier a BIFR referred sick company came out of the purview of BIFR in February, 2007 itself. During the next three years BPCL performed well. The net profit of the company has increased from the level of ₹ 1.84 crore during 2005-2006 to ₹ 30.43 crore during 2009-2010. However, the company registered a decline in performance during 2010-11 and 2011-12 when the company made a profit of only ₹ 19.01 crore. There were corresponding increases in the turnover in these years followed by decreases, thereafter. During the year 2015-16 the company registered a net loss of ₹ 60 crore due to low order booking, slowdown in economy, the entry of foreign players, growth of domestic manufacturers led to decline in sales.

2.7 Bridge & Roof Company (India) Ltd.

Bridge & Roof Co. (India) Ltd. (B&R) was set up in January 1920 as a subsidiary of Balmer Lawrie & Company Limited. Subsequently, it became a Government Company in 1972 under the Ministry of Petroleum & Natural Gas. In June, 1986, the administrative control of B&R was transferred to the Ministry of Heavy Industries and Public Enterprises and it was subsequently brought under the fold of the holding company, M/s Bharat Yantra Nigam Ltd. (BYNL), Allahabad in 1987. Consequent to the decision taken by Government of India, BYNL ceased to be the Holding Company of Bridge & Roof from 06.05.2008 and B&R came directly under DHI. The Company capital restructuring and strengthening proposal was approved by GOI on 02.09.2005.

B&R is a premier construction and engineering company in the field of Civil and Mechanical Construction and Turnkey Projects in various sectors such as hydrocarbon, power, aluminium, steel, railways, etc.

The company has been maing profit since 2007-2008 and awarded Miniratna category-I in 2010. B&R's performance during the last few years has been phenomenal and turnover of the company during the year 2015-2016 was ₹ 1710.18 crore with PBT of ₹ 5.03 crore. B&R paid a dividend of ₹ 1.36 crore to Government of India in November 2015.

2.8 Richardson & Cruddas (1972) Ltd.

Richardson & Cruddas (1972) Ltd. (R&C) was taken over from private sector in 1973. The Company is a schedule "C" company and fully owned by GOI. It has four operating units: two at Byculla and Mulund in Mumbai, one each at Nagpur and Chennai and is engaged in the field of Fabrication & Erection of Steel Structures, Fabrication of Pressure Vessels, Boiler Drums, Hot Pressed Dished Ends, Transmission line towers, providing environmental engineering laboratory services and maintaining townships. The turnover for the year 2014-15 of the company stood at ₹ 50.10 crore. Union Cabinet approved the financial restructuring of the company on 21.09.2016.

2.9 Hindustan Cables Ltd.

As per the decision of the Union Cabinet taken on 28.09.2016, closure/winding up action of the company will take place shortly.

2.10 Heavy Engineering Corporation Ltd.

Heavy Engineering Corporation Ltd. (HEC), Ranchi was incorporated on 31st 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 iron and steel industry and other core sector industries like Mining, Metallurgical and Engineering Industries. It has three manufacturing units and one turnkey project division viz :

- **Heavy Machine Building Plant (HMBP)**

  This unit manufactures wide range of equipment for Steel Plants like Blast Furnaces and rolling Mills etc., Material Handling Equipment like EOT Cranes and Wagon Tipplers, etc, equipment for Mining industries like 5 & 10 CuM Excavators, Crushers, Drag Lines and Mine Winders etc.

- **Heavy Machine Tools Plant (HMTP)**

  It manufactures complete range of Heavy Machine Tools including CNC Heavy Duty Machine Tools and Special purpose Machine Tools required for Railways, Defence, Power and other sectors.

- **Foundry Forge Plant (FFP)**

  It Manufactures various types of Heavy & Medium Castings, Forging and Rolls for

Power, Nuclear and other sector besides B.G. Crank Shaft for Railways. This Unit also acts as a feeder unit for HMBP and HMTP.

- **Turnkey Project Division**

  It undertakes turnkey projects in the areas of Low Temperature Carbonization Plants, Coal Handling Plants, Coal Washeries, Sintering Plants, Continuous Casting Plants and Raw Material Handling System etc.

  Deteriorating health of equipment/facilities coupled with acute shortage of working capital has been badly affecting the performance since 2014-15. Production and Gross Turnover during the year 2015-16 is ₹ 340.68 crore and ₹ 407.28 crore respectively as against ₹ 319.58 crore, ₹ 391.50 crore respectively during 2014-15 as such company incurred operating loss of ₹ (-) 144.77 crore in 2015-16. MOU target of the Company for the year 2015-16 in terms of Gross Turnover and Net profit were ₹ 933.58 crore and ₹ (-) 29.83 crore respectively.

2.11 HMT Limited (HTML)

HMT Limited, one of India's premier Engineering conglomerates was incorporated by the Government of India in the year 1953, with the objective of producing machine tools required for building an industrial edifice for the country and a manufacturing unit was established at Bangalore in collaboration with M/s Oerlikon of Switzerland. Over the years the Company diversified into manufacture of various products like Watches, Tractors, Printing Machines, Food Procession Machinery, Presses, Bearlings etc. and established manufacturing facilities for these products across the country, in places like Bangalore Hyderabad, Ajmer, Kalamassery near Cochin, Pinjore near Chandigarh, Tumkur near Bangalore, Ranibagh near Nainital and Srinagar in Kashmir.

To meet the challenges of globalization consequent to the initiation of New Economic Policies of the Indian Government and in keeping with contemporary business models, the Company was restructured in the year 2000 with the formation of subsidiaries based on its various business portfolios under the ambit of a holding company.

2.12 HMT Machine Tools Limited (HMT MTL)

The Machine Tools Business of HMT Limited was incorporated as a wholly owned subsidiary in the year 2000. HMT MTL manufactures metal cutting & metal forming machines including printing machines and Die-casting & Moulding machines, catering to both domestic and export markets. The manufacturing units of HMT MTL are situated in Bangalore, Pinjore, Kalamassery, Hyderabad and Ajmer. The Company also provides services for reconditioning and refurbishing of machines of HMT as well as other makes.

The Company has the distinction of supplying machines and equipment for special applications in Space, Atomic Energy & Defence Sectors. The erstwhile Praga Tools Ltd., manufacturers of CNC and non-CNC machine tools become a subsidiary of HMT Limited in the year 1988 and during 2007-08, the Company was merged with HMT Machine Tools Limited. The marketing network of HMT MTL is spread across the country to cater to the sales & service needs of the customers.

2.13 HMT (International) Limited (HMTI)

HMT(International) Limited regarded as one of the best export houses in the Country, exports HMT products as well as engineering goods of other Indian manufacturers. Major thrust is given for implementation of Turnkey projects in the area of Tool Rooms and Training Centers. The subsidiary was formed in the year 1974. HMT (International) has been accorded the status of 'Mini Ratna'.

2.14 Instrumentation Limited.

Instrumentation Ltd. Kota (IL) was set up in 1964 to achieve self reliance in the field of Process Control Instrumentation. The Company has two manufacturing Units located at Kota (Rajasthan) and Palakkad (Kerala).

The product range of the Company includes sophisticated Digital Distribution Control Systems, High performance electronic transmitters, Desk/panel mounted indicators/recorders and other hardware, liquid & gas analyzers, Panels, instrument cabinets & racks, Control valves & actuator, Telecommunication Systems, Defence Electronics, Railway signaling systems, Uninterrupted Power Supply Systems (UPS) etc.

IL has developed special solenoid valves and flow nozzles, which have been widely, used by Narora, RAPP & MAPP units of Nuclear Power Corporation. The Palakkad Unit has developed Bellow Sealed Valve, which is an important Control element in Nuclear Power Production, for which the unit has received import substitution award from the Directorate General of Technical Development (DGTD).

In recent years the company is making Endeavour's to cope with the challenges posed by globalization, reduced demand and stiff competition in Control and Instrumentation, obsolescence of technology, shortage of working capital and a high wage Bill and interest burden. A BIFR approved Modified Revival Scheme that envisages the provision of fund and non-fund based support to help revive the company, is under implementation. IL was able to maintain its operations despite the constraints and could achieve a turnover of ₹ 15886 lakh, during 2015-16 as compared to previous year's turnover of ₹ 15835 lakh. Orders valued at ₹ 14644 lakh were received in the Financial Year 2015-16 as against order of ₹ 14238 in year 2014-15. In view of the unaccounting losses of the company and inability of Kota unit to support the salary of its employees, Cabinet has approved the closure of Kota unit of Instrumentation Ltd. and in principal approval of transfer of Palakkad unit to Government of Kerala on 30.11.2016.

2.15 Rajasthan Electronics & Instruments Ltd.

Rajasthan Electronics & Instruments Limited, Jaipur (REIL) was set up in 1981 as Joint Venture of Instrumentation Limited, Kota (ILK) and Rajasthan State Industrial Development and Investment Corporation

Limited (RIICO) with 51% and 49% ownership respectively. REIL is categorized as Schedule 'C' and has been conferred 'Mini Ratna' status in 1997 and is an ISO 9001 & ISO 14001 certified since 1998 and 2008 respectively. The transfer of shares is in progress in accordance with approval of CCEA for de-linking of the Company from Instrumentation Limited for turning it into independent Central Public Sector Enterprise (CPSE) under Department of Heavy Industry.

REIL provides technology solutions for qualitative & quantitative analysis of milk across all verticals of Dairy Industry sector through its ON/AT line milk analysis and automation solution; addresses needs of the rural and related urban sector through Solar Photo Voltaic; and information Technology & security surveillance applications for e-governance, dairy vertical small business and Government sectors. The focus is on Shaping Rural India through Electronics, Renewable Energy & IT Solutions.

REIL has been registering steady growth over the years. In financial 2015-16 it has shown the good performance with Profit after Tax of ₹ 12.00 crore on a turnover of ₹ 213.42 Crore. The net worth of the Company has crossed three digit from ₹ 94.44 Crore to ₹ 101.37 Crore with huge order booking of ₹ 354.00 Crore, i.e. an increase of more than 7% & 81% y-o-y respectively. It has paid all time high dividend of ₹ 5.07 Crore for the year 2015-16.

During 2015-16 the Company's deemed and direct exports were valued at ₹ 0.23 crore. The Company, through its market driven in-house Research & Development (R&D), recognized by the Ministry of Science and Technology, Government of India has developed and deployed more than 100 variants that includes new products and up gradation of existing products to cater the needs of the customer.

Major development projects undertaken in FY 2015-16 include following:

a) GPRS based Smart Data Processor Electronic Milk Tester (SDPEMT) & Data Processor Milk Collection Unit (DPMCU).

b) Next Generation DPU (NG-DPU)

c) Centralized Control & Monitoring System to monitor and control public street lights.

d) Jammer for use in examination conducted by statuary bodies.

e) LED Street light retrofitting by replacing conventional street light with energy efficient LED lights.

f) Web-based Remote Monitoring Unit (RMU) for Solar Water Pumping Systems.

The Company has aligned its objectives and plans with Government's missions and policies, addressed the critical need of **National Milk Grid and Cold Chain** through deployment of GPRS enabled Milk Automation Solutions; under **Make in India** initiative-Set up a production line for manufacturing of Electronic Milk Adulteration Testers and also started manufacturing of Low-cost Multi- parameter Milk Analyzer in response to MoU signed at Hannover Messe 2015; under **National Solar Mission**, designated as expert CPSE and Project Management Consultant (PMC) for 10 Ministries to rollout 765 MW Grid Connected Rooftop Solar Power Projects; Nodal agency for implementing Solar projects at Jaipur and Udaipur and Security Surveillance solutions under **Smart Cities Mission** and under **FAME India scheme**, deploying Solar/Electric fast-slow charging stations for charging of electrical vehicles.

2.16 Scooters India Ltd.

Scooters India Limited, Lucknow, set up in 1972, with a second hand plant bought from M/s Innocenti of Italy, is engaged in manufacturing and marketing of three wheelers.

SIL incurred losses continuously since inception and was declared a sick company on 11th August, 1992 and came under the purview of Board for Industrial and Financial Reconstruction (BIFR). Following revival proposal was approved by the Cabinet in its meeting held on 31.01.2013:

(i) To infuse of ₹ 70.38 crore as equity by GOI for capital expenditure.

ii) To provide ₹ 20 crore as interest free plan loan by GOI for working capital. The plan loan may be recovered in 5 equal annual installments commencing from 31.3.2015, after moratorium of 3 years.

iii) To convert Plan Loan of ₹ 1.93 crore, outstanding as on 31st March 2012, into equity.

iv) To convert Non Plan loan of ₹ 83.28 crore, outstanding as on 31st March 2012, into equity.

v) To waive interest accrued and due of ₹ 22.17 crore as on 31st March 2012.

vi) To waive interest accrued and not due of ₹ 4.20 crore as on 31st March 2012.

vii) Enhancement of superannuation age from 58 years to 60 years in relaxation of DPE guidelines.

viii) Implementation of 2007 pay revision as per DPE guidelines.

Following the BIFR order in the Miscellaneous petition filed by the Company, sanctions have been issued for interest free loan of ₹ 20 crore for working capital and ₹ 31.90 crore as equity for CAPEX out of ₹ 70.38 crore approved by GOI.

Sanctions have also been issued for waiver of interests and conversion of loan. Orders on enhancement of age of superannuation have also been issued.

The Performance of Scooters India Limited (SIL) is as follows:

(₹ in crore)

Year	2012-13	2013-14	2014-15	2015-16
Sales	209.82	193.66	167.72	152.04
Profit/(Loss)	6.00	13.60	11.09	5.48

The Hon'ble Bench of BIFR, New Delhi during their hearing held on 15th September, 2015 has noted that the net worth of SIL, Lucknow has become positive by substantial amount as per Audited Balance Sheet as on 31.03.2013 and 31.03.2014, and thus it does not remain to be a sick industrial company in terms of Section 3(1) (0) of SICA. They discharged the company from the purview of SICA.

2.17 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 has 10 units spread over 8 States/Union Territories, located at Mandhar and Akaltara in Chhatisgarh; Nayagaon in Madhya Pradesh; Kurkunta in Karnataka; Bokajan in Assam; Rajban in Himachal Pradesh; Adilabad and Tandur in Telangana; Charkhi Dadri in Haryana; Delhi Grinding Unit in Delhi. The Company became sick and referred and registered with Hon'ble BIFR as sick Company in 1996. After great deliberation and discussion, the revival package of CCI was approved in 2006 with expansion/ up gradation and modernization of three operating plants i.e. Rajban in Himachal Pradesh, Bokajan in Assam and Tandur in Telangana and closure/sale of 7 non-operating plants. 25% capacity expansion of Rajban unit has been completed. Order for 100% capacity expansion of Bokajan plant have been issued on turnkey basis and work is under progress. Technological up-gradation of Tandur unit has also been taken up.

Sale process has been held up as per BIFR order dated 19.06.2014 till formation of new Asset sale Committee under Chairmanship of Joint Secretary of Department of Heavy Industry (DHI). As such DHI has been requested to nominate the Chairman of the committee which will take up the sale of the 7 non-operating units. In the meantime, BIFR has directed to submit road map to Department of Heavy Industry for rehabilitation of the company and submission of Modified Draft Rehabilitation Scheme (MDRS). CCI has submitted the roadmap to Ministry. MDRS is under preparation, accordingly EOI has been invited and tender documents have been prepared.

The total sales turnover for the year 2015-16 is ₹ 436.23 crore with the net profit of ₹ 53.51 crore.

2.18 Hindustan Paper Corporation Ltd.

HPC was incorporated on 29.05.1970 with the objective of establishing pulp and paper/newsprint in the Country to make paper available for mass communication. HPC is a Schedule 'A' Miniratna CPSE in "Consumer Goods sector".

2.19 Hindustan Newsprint (HNL)

Hindustan Newsprint Limited (HNL) was incorporated as wholly owned subsidiary of Hindustan Paper Corporation Limited (HPC) in 1982 with the main objective of taking over the business of Kerala Newsprint Project, a unit of Hindustan Paper Corporation Limited.

2.20 Nagaland Pulp & Paper Company Ltd. (NPPC)

Nagaland Pulp & Paper Company Limited (NPPC) was incorporated in 1971 with the objective to construct and manage a modern integrated pulp and paper mill at Tuli in Nagaland. The commercial production commenced in 1982. It was incorporated as joint venture between Government of Nagaland (GoN) & Hindustan Paper Corporation Limited (HPC). NPPC is a joint venture subsidiary of HPC, wherein HPC holds 99.06% equity & GoN holds 0.94% equity. NPPC is a schedule 'C' BIFR/BRPSE referred CPSE in "Consumer Goods Sector" with its registered office at Nagaland and Corporate Office at Kolkata.

2.21 Jagdishpur Paper Mills Limited (JPML)

On 12th February 2014 Government approved the proposal for setting up of JPML a Greenfield pulp and paper project at Jagdishpur, Dist-Amethi, UP as a separate company, at a cost of ₹ 3650 crore to be implemented to two phases, with ₹ 733 crore fresh fund infusion by GOI in phase 1 and debt ₹ 917 crore to be obtained from Banks/FIs against Government Guarantee. UPSIDC agreed to allot 187.5 acre land in September 2013. Accordingly, EMD of ₹ 11.8 crore was paid to UPSIDC by HPC in October 2013 for allotment of 187.59 acre of land at Jagdishpur. But land went into litigation and is sub-judice since 05.12.2013. Since the case has been sub-judice, no project activity could be started.

2.22 Hindustan Photo Films Manufacturing Co. Ltd. (HPF)

HPF was incorporated on 30th November, 1960 with the aim to make the country self-reliant in the field of photo sensitive products. The Company commenced commercial production in 1967. The Company started incurring continuous losses since 1992-93. On its Net Worth becoming negative on 31.03.1994, the Company was referred to the Board for Industrial and Financial Reconstruction (BIFR) on 14.1-.1995, which declared it sick on 23.01.1996. Despite efforts by BIFR, no sustainable revival package could be formulated and on 30.01.2003, the BIFR passed orders recommending the winding up of the Company. Decision of BIFR was upheld by AAIFR. The matter was taken to Hon'ble High Court of Madras which granted stay on the proceeding of BIFR/AAIFR on 27.06.2005. After a very long period, the Hon'ble Court on 29.08.2016 vacated the stay order opening up scope for company Court to decide on appointment of Official liquidator. Department is pursuing hard for early appointment of O.L.

In the meantime, based on the recommendations of Board for Reconstruction of Public Sector Enterprises (BRPSE), CCEA in its meeting held on 28.02.2014 inter alia approved for VRS package for all the employees of HPF at 2007 notional scale. CCEA also decided to take further action for closure of the Company. Accordingly 466

VRS optee employees have been relieved on VRS and 167 employees are still on the roll of the Company.

The Company is on salary/wages/statutory dues support from the Government. Salary/statutory dues/wages had been provided by Govt. to the company up to 31.03.2015.

2.23 Hindustan Salts Ltd. (HSL)

HSL is fully Government owned and incorporated in 1958, with corporate office in Jaipur and manufacturing units of Kharaghoda (Gujarat) and Mandi (Himachal Pradesh). It is engaged in the production of Common Salt and Salt-based chemicals. It was declared sick on 13.6.2000. A revival package was sanctioned by Government/BIFR in August, 2005. The company has come out of the BIFR in December, 2008. The Company had 77 employees as on 31.3.2016. The production and net profit of the Company in 2015-16 was ₹ 4.51 crore and ₹ (-) 1.13 crore respectively.

2.24 Sambhar Salts Ltd. (SSL)

Sambhar Salts Ltd. (SSL) is a subsidiary of Hindustan Salts Ltd. (HSL) and incorporated in 1964, as a joint venture of HSL and Government of Rajasthan. The company produces salt, both for edible and industrial use. The Company had 107 employees as on 31.03.2016. The production and net profit of the Company in 2015-16 was ₹18.41 crore and ₹ - 8.90 crore respectively.

2.25 NEPA Ltd.

NEPA Limited, Nepanagar, Madhya Pradesh, a Public Sector Enterprise (PSE) was incorporated as a private enterprise on 26th January 1947 by M/s Nair Press Syndicate Limited under the name of "The National Newsprint and Paper Mills Limited" for production of newsprint. Government of India (GOI) took over the controlling interest of the company in 1958. The name of the Company was subsequently changed to Nepa Limited in February 1989. The company holds license for production of newsprint and writing & printing paper.

The company was referred to Board for Industrial and Financial Reconstruction (BIFR) in 1998 as its net worth had completely eroded by accumulated losses as per annual results of 31st March, 1997.

Cabinet in its meeting held on 6.9.2012 accorded approval to the proposal for revival of NEPA Ltd., with a capital expenditure of ₹ 285 crore (out of which, ₹ 157 crore to be funded by infusion of fresh equity by GOI and balance ₹ 128 crore through bank loans) for Revival & Mill Development Plan(RMDP).

2.26 Engineering Projects (India) Ltd. (EPIL)

Engineering Projects (India) Limited (EPIL) was incorporated in the year 1970 with the main objective to undertake turnkey projects and consultancy services in India and abroad. EPI is the first Indian Company to undertake large civil and industrial projects abroad. EPIL is a profit making, dividend paying Mini Ratna Category-II Central Public Sector Enterprise in Industrial Development and Technical Consultancy

Services sector under the administrative control of the Ministry of Heavy Industries & Public Enterprises with 100 % shareholding by the Government of India and PSUs. EPIL has pan-India presence having its Regional/ Zonal Offices at different geographical locations viz. New Delhi, Mumbai, Kolkata, Chennai, Guwahati, Hyderabad to undertake its operations across India besides project sites spread all over the country as well as in Oman and Sri Lanka .

As on 30.09.2016, EPIL has completed 540 projects in India and 31 projects abroad.

EPI has achieved a turnover of ₹ 482 crores viz a viz target of ₹ 445 crores for the period April-September 2016 of current financial year.

EPI paid dividend of ₹ 10.80 crores (i.e. 5% of net worth as on 31.03.2015) to the Government of India for the year 2015-16.

Chapter 3

Heavy Electrical Engineering, Heavy Engineering and Machine Tool Industries

3.1. Heavy Engineering and Machine Tools Industry

Heavy Engineering and Machine Tools Sector mainly consists of Capital Goods Industry. Prominent sub-sectors of Capital Goods Industry are Machine Tools, Textile Machinery, Construction and Mining Machinery and other heavy industrial machinery such as Cement Machinery, Rubber Machinery, Metallurgical Machinery, Chemical and Fertilizer Machinery, Printing Machinery, Dairy Machinery, Material Handling Equipment, Oil Field Equipment, Paper Machinery etc. These industries are de-licensed and foreign direct investment (FDI) up to 100 percent under automatic route as well as technology collaboration is allowed freely. Import of old and new machineries is allowed freely.

The Department has reconstituted Development Councils for Machine Tools Industry, Textile Machinery Industry and Construction, Earthmoving and Mining Machinery. These Development Councils are the platform where machinery / equipment manufacturers, users of machineries and policy maker from Government Departments discuss the various issues and take decisions for the sustainable growth of these industries.

Department of Heavy Industry Enhancement in the Competitiveness of the Capital Goods Sector will encourage technology up gradation, skill development and augmentation of modern manufacturing capacities leading to global competitiveness of the industry.

3.1.1 Machine Tools Industry:

Machine Tools Industry is a strategic industry with around 200 machine tool manufacturers in the organized sector as also around 400 small scale units. The industry lacks in design and engineering capability to undertake high precision CNC Machines. Due to technology gaps in the field of metal cutting machine tools, metal forming machines, special technologies and critical components development etc. the import of technology as well as R&D initiatives is encouraged to bridge the gaps.

Specified areas where technology is required were identified and discussions with IITM took place for the development of these technologies. Advance Technology Centre of Excellence is proposed to be set up in IIT Madras to address the technology gaps and for manufacturing world class Machine Tools. For enhancing the production to meet the ever-growing domestic demand of hi-tech machine tools, an integrated Machine Tools Park has been proposed by the industry at Tumkur near Bengaluru.

Total Productive Maintenance (TPM) programmes in association with UNIDO and CII for CG Sector including Machine Tools Industry is also in the agenda of the Department.

3.1.2. Textile Machinery Industry:

Textile Machinery Industry is a significant component of the capital goods industry. This industry comprises of over 1446 machinery and component manufacturing units with over 600 units producing complete machinery and other units are mainly into the production of parts and accessories of textile machinery. The textile machinery includes sorting machinery, carding machinery, processing machinery of yarns/fabrics, weaving machinery etc.

There are technology gaps in areas like weaving, processing, special purpose finishing machines, knitting and garmenting machineries and critical components such as auto-coner and rotor spinning machine with automation, wider width processing machines, etc. There is insufficient in-house R&D in this industry as well as absence of large foreign/domestic players in weaving and processing machineries.

Central Manufacturing Technology Institute (CMTI) has been entrusted for the development of medium & high speed shuttle less loom's technology, Linkage with one of the Indian Institutes of Technology (IITs) for technology development with industry with the objective of long term strategy is proposed. Common Engineering Facility Centre for textile machinery ancillary units is also planned for the manufacture of quality products with cost competitiveness.

3.1.3. Plastic Processing Machinery Industry:

There are 11 major manufacturers of machinery in the organized sector and nearly 200 small & medium manufacturers. Major plastic machineries include Injection Maudling Machine, Blow Maudling Machine and Extrusion Maudling Machine.

Domestic manufacturers can meet 95% of processing industry needs on technology and product range. World leading technologies have manufacturing presence in the country through wholly owned subsidiaries or technology license arrangements.

3.1.4 Dies, Moulds & Tools Industry:

Indian Tool Room Industry is very fragmented and consists of more than 500 commercial tool makers engaged in design, development and manufacturing of tooling in the country. In addition to commercial tool makers, 18 Government Tool Rooms cum Training Centres are also operating in the country. The key commercial Tool Room locations are Mumbai, Bengaluru, Chennai, Pune, Hyderabad and NCR. A Common Engineering Facilities Centre for Tool Rooms in and around Pune area is being set up in Chakan, Pune with grant from Department of Heavy Industry.

3.1.5 Process Plant Equipment:

There are over 200 Units engaged in the manufacturer of process plant machinery in the country out of which 65% are small & medium manufacturers. Major process plant machineries which include tanks pressure vessels, evaporators, stirrers, heat exchangers, towers & columns, crystallizer, furnace, etc. are used in energy sector, gas, oil, refinery, chemical & petrochemical, fertilizer, paper & pulp, sugar, cement, dairy industry, etc.

The sector today is equipped with state of the art processes to engineer and fabricate complex process equipments across different materials of construction. The plant sizes of these companies have also increased and at times are comparable or even larger than global companies.

However, domestic industry lacks know-how on process technology, owing to which, sector is dependent on Overseas Process Licensors. However, China, on other hand has attempted to get the knowhow on process technology, by setting up research institutes and labs and acquiring such expertise from other regions. At operational level, Welding, Forming, Machining technologies could be improved to enhance the productivity. Target technologies to be developed are Sub Sea Equipment, Oil well drilling, Process gas Boilers for Ethylene and Gas Crackers, etc.

3.1.6. Earth Moving and Mining Equipment:

Currently 20 large & global manufacturers and nearly 200 small & medium manufacturers of earthmoving & mining machinery are present in India. The product range comprises of Backhoe Loaders, Compactors, Mobile Cranes, Pavers, Batching Plants, Crawler Crane, Transit Mixer, Concrete Pump, Tower Cranes, Hydraulic Excavators, Dumpers, Mining Shovel, Walking Draglines, Dozers, Wheel Loaders, Graders, Drilling Equipment, etc.

In India open cast mining is much more popular than underground mining. Hence, the equipment required for the open cast mining like Dumpers, Dozers, Shovels, Draglines and Excavators are manufactured in India.

Based on the Industry forecast for the next 20 years, there is a need to develop indigenous capability in respect of Electric Dump Trucks~190 ton-240 ton, Rope shovels ~ 42 cum, Walking Draglines ~ 72 m-33 Cum; Hybrid Drive Loaders ~ 10 cum bucket, 2500 HP Electronically Controlled Emission Compliant Engine, Long Wall Mining Systems and Continuous Miners for underground mines, etc to be able to meet the market demand, bulk of which is currently imported.

The data of production, Export and Import of sub-sectors of Capital Goods Sector are as under:

(₹ in crores)

Sub-Sectors of Capital Goods	Production			Import			Export		
	2013-2014	2014-2015	2015-2016	2013-2014	2014-2015	2015-2016	2013-2014	2014-2015	2015-2016
Machine Tools Industry	3481	4230	4727	4672	5318	5945	247	281	296
Textile Machinery Industry	6775	6960	6580	11749	12350	10305	2604	2822	2351
Plastic Processing Machinery	2660	2950	3300	1282	1583	1620	821	901	750
Earthmoving Construction and Mining Equipment	16000	17000	19375	12689	12056	12858	6460	7385	7543

Chapter

4 Automotive Industry

4.1 Overview of the Automotive Industry

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. The well-developed Indian automotive industry of India ably fulfills 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.

Automobile Industry was delicensed in July 1991 with the announcement of the New Industrial Policy. The passenger car was however delicensed in 1993. The norms for foreign investment and import of technology have also been progressively liberalized over the years for vehicles manufacturer 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. With the gradual liberalization of the automobile sector since 1991, the number of manufacturing facilities in India has grown progressively. Aptly, the sector was christened as the 'Sunrise Sector' of the economy.

Indian Automobile Industry which was at its nascent stage at the beginning of the 21st century has now become a huge industry that contributes majorly to growth and development of Indian Economy. As per the current statistics, the auto Industry's turnover is estimated to be equivalent to 7.1% of overall GDP. The auto industry currently employs more than 32 million people both directly and indirectly. The auto-industry is a key employment generator in the OEM factory that manufactures the vehicles, in the inbound auto component and logistics industry that makes and delivers component & systems and the outbound logistics and dealer network that sells, maintains and distributes the cars. Every vehicle produced, generates secondary and tertiary employment. The industry generates employment of 13 persons for each truck, 6 persons for each car and four persons for each three wheeler and one person for two-wheelers. It is important to appreciate the sector's multiplier effect on economic activity. If the Government's objective is to increase the share of manufacturing in the GDP of the economy from an estimated 15 per cent to at least 25 per cent so that employment gets a definite boost, the role of auto industry cannot be ignored and the industry has already made investments to achieve this objective and have increased the capacity to levels that would be needed to achieve the objective. Skill level of penetration of vehicle in India is very low compared to developed and even with parallel economies. In India, there are only 20 passenger vehicles per 1000 population, 5 commercial vehicles per 1000 population and 108 two wheelers per 1000 population. Globally, these figures are substantially higher. For instance, Germany has an estimated 518 cars per 1000 population, Japan has 457 cars per 1000 population and Thailand 68 cars per 1000 population. In case of Commercial vehicles, the penetration in various countries is much higher i.e. 388 in the USA, 121 in Japan, 86 in Thailand, etc. In two wheelers also, countries like Thailand (248), Indonesia (216) etc. have much higher penetration.

The Industry has potential to grow to become a major economic contributor. The Government also recognizes the importance of the automobile industry in the Indian economy and hence finalized Automotive Mission Plan 2016-26 setting targets for the industry for the year 2026.

Production: The Industry produced a total 19.2 million vehicles including passenger vehicles, commercial vehicles, three wheelers and two wheelers in April-December, 2016 against 17.9 million in April- December, 2015 (% of growth rate is 7.31%).

Domestic Sale: The domestic sale during the period April to December, 2016 is 16.6 million against 15.2 million in April to December, 2015. (% of growth rate is 9.42%).

Exports: In April-December 2016, overall automobile exports are 2.6 million against the same period i.e. April-December 2015 is 2.8 million. (% of growth rate is -7.37%.)

The details of automobile production, domestic sales and export of various automobile segments during the year 2010-11 to 2015-2016 and 2016-2017(up to December 2016) are given below:

Domestic Automobile production:

(No. in thousands)

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017 [April-Dec.]
Number of Produced	17,892	20,366	20,626	21,481	23,366	23,961	19,237
Growth percent	27.35	13.83	1.20	4.04	8.68	2.58	7.31

Sources: SIAM

Trend of domestic automobile sales:

(No. in thousands)

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-17 [April-Dec.]
Number of Sold	15,513	17,367	17,794	18, 422	19,753	20,469	16,642
Growth percent	26.17	12.24	2.61	3.53	7.22	3.78	9.42

Source: SIAM

Automobile export:

(No. in thousands)

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-17 [April-Dec.]
Number of Export	2,320	2,910	2,898	3,107	3,573	3,642	2,634
Growth percent	28.60	25.44	(-)0.41	7.21	14.89	1.91	(-)7.37

Source: SIAM

4.2 Auto Components Industry

Auto Components Manufacturers Association (ACMA) represent over 750 companies which contribute over 85% of the total Auto component output in the organized sector. It supplies components to vehicle manufacturers as original equipment, tier-one supplier, state transport undertakings, defence establishments, railways and also to the replacement market. A variety of components are also being exported to OEMs and after- markets worldwide.

During the FY 2015-16 the Indian Automotive Industry faced several challenges such as inconsistent monsoons leading to a slowdown in the rural demand and also certain regulatory developments like stricter emission norms, safety regulations, end of life, focus on fuel conservation leading to changing usage habits of automotive consumers. In this milieu, despite all odds, the Indian auto-component industry registered a turnover of 2,55,635 crore (USD 39 billion) growing by 8.8 percent, surpassing the Automotive Mission Plan 2006-16 target. The CAGR of the industry stood at 6 percent over a period of six years.

Also, it is interesting to note, in a period when the overall exports of India declined by 9.58 per cent, the Indian auto component industry exports grew by 3.5 per cent to 70,996 crore (USD 10.8 billion) in 2015-16 from ₹ 68,500 crore (USD 11.2 billion) during 2014-15, registering a CAGR of 18 percent over a period of six year. Europe accounted for 36 per cent of exports followed by Asia and North America, each at 25 per cent. Exports to Central America and North America increased by 30 per cent and 3 per cent respectively, over the previous fiscal. The key export items included engine parts, transmission parts, brake system & components, body parts, exhaust systems, turbochargers etc. ACMA has played a pivotal role in supporting its members in export development and in discovering new market opportunities, currently the industry exports to more than 160 countries

For the fiscal 2015-16 an estimated capital investment of ₹ 2,700 – 4,000 crore (USD 0.44 – 0.66 billion) was witnessed in the auto component sector compared to ₹ 2,000 – 2,800 crore (USD 0.33 - 0.46 billion) in 2014-15.

The overall details of Automotive Components Industry-Performance are given below:

[₹ in Crore]

Year calculated @	**2010-11 (₹.34.8)**	**2011-12 (₹.48.5)**	**2012-13 (₹.54.4)**	**2013-14 (₹60.28)**	**2014-15 (₹61.1)**	**2015-16**	**CAGR 2010-16**
Turnover % Growth	1,81,944 34.80%	2,10,442 15.70%	2,16,094 5.60%	2,11,765 -2.00%	2,34,869 11.1%	2,55,635 8.8%	6%
Exports % growth	23,712 55.00%	33,465 41.10%	52,690 23.30%	61,487 16.70%	68,522 11.4%	70,916 3.5%	18%
Imports % growth	38,760 32.50%	51,410 32.60%	74,463 11.60%	77,160 3,60%	82,931 7.5%	90,662 9.3%	13%
Investments	9,120-10,260	7,760-9,215	6,900-9,500	3,200-4,400	1,980-2,767	2,700-4,000	---
Imports as % of turnover	21%	24%	34%	35%	35%	35%	---
Export as % of turnover	13%	16%	24%	26%	29%	28%	---

Source ACMA

4.3 Agricultural Machinery Sector:

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. Indian Tractor Industry is the largest in the world (excluding sub 20 HP belt driven tractors used in China), accounting for one third of the global production. The other tractor markets in the world are China and United States.

Indian Tractors were exported to US and other countries like Malaysia, Turkey, etc. Indian players have aggressively started exporting to African countries by bidding for government tender requirement. As such, Indian tractors are gaining acceptance in international markets. As the cost of tractors in India is cheapest in the world, there is tremendous scope for improvement of export of tractors in future. The production and export of Tractors for the last two years & current year (upto November, 2016) are as under:-

Year	**Production** *(in Numbers)*	**Export** *(in Numbers)*
2014-15	6,12,994	75,376
2015-16	5,70,791	77,485
2016-17 (Upto Noveber, 2016)	4,76,995	52,067

4.4 Important initiatives taken in respect of auto sector by the Department of Heavy Industry (DHI):

Department of Heavy Industry being the nodal Department for automobile and auto component industry takes up an array of issues relating to automobile sector at various platforms for its growth. In this regard, the Department has taken various important initiatives, as outlined below:

4.4.1 Scheme for Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India – FAME India Scheme.

Government of India approved the National Mission on Electric Mobility in 2011 and subsequently National Electric Mobility Mission Plan 2020 was unveiled (in 2013) by the then Hon'ble Prime Minister. As part of the mission, the Department has formulated a scheme namely **FAME – India** [Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India]. The overall scheme is proposed to be implemented over a period of 6 years till 2020, wherein it is intended to support the hybrid/electric vehicles market development and its manufacturing eco-system to achieve self-sustenance at the end of the stipulated period. Government is committed to instill confidence in the industry and allow them to plan requisite investments and create needed capacities. This shall also enable the scheme to align with "Make in India" initiative. The scheme shall have 4 focus areas i.e. Technology Development, Demand Creation, Pilot Projects and Charging Infrastructure. The Phase-1 of the scheme shall be implemented over a 2 year period i.e. FY 2015-16 and FY 2016-17 commencing from 1st April 2015.

The scheme is one of the green initiatives of the Government of India, which will be one of the biggest contributors in reducing pollution from road transport sector in near future. This scheme is aimed at incentivizing all vehicle segments i.e. 2-Wheelers, 3-Wheeler Auto, Passenger 4-Wheeler Vehicles, Light Commercial Vehicles and Buses.

During the Financial Year 2016-17, an amount of ₹ 122.90 Crore (BE 2016-17) was allocated for this Scheme, out of which an amount of ₹ 99.50 Crore (approx) has already been utilized for this scheme.

Through this scheme, about 1,10,000 electric & hybrid vehicles has been given direct support by way of demand incentives (*total incentive amounting to ₹ 131.78* crore) since its launch on 1st April 2015 and till 31st December 2016. From 1st April 2016, nearly 59,000 vehicles were supported by demand incentives till 31st December 2016.

In addition, the Department has approved the pilot projects, projects of charging infrastructure and project of technological development worth ₹ 155 Crores. Some of the projects approved are establishment of Centre of excellence for Charging Infrastructure for ₹ 6 Crores, support to HP Govt for purchase of 25 Electric Buses worth ₹ 37.5 Crores, establishment of 10 Solar Charging Stations at Delhi and Jaipur. DHI also arranged public awareness events at Bangalore on 5th June 2016 and sponsored

National Workshop on 15th July 2016.

4.4.2 National Automotive Board: The Government had approved the setting up of National Automotive Board (NAB) as an autonomous Society under the Department of Heavy Industry (DHI). NAB is intended to be a lean organization housing auto sector technical and domain expertise that will also bring on a single platform the multitude of agencies and Ministries that currently have a role to play in shaping the policies, regulations and interventions that impact the automotive sector thereby providing a holistic approach for the growth and development of the sector. Consequent upon the Cabinet Approval in October, 2012 for setting up of National Automotive Board as an autonomous Society under DHI, NAB has been registered by the registrar of societies, NCT of Delhi as an autonomous Society under the Societies Registration Act XXI of 1860 on 27th August, 2013 vide registration No S/ND/311/2013. NAB's MOA and Rules & Regulations have also been registered.

Key functions assigned to National Automotive Board as contained in Cabinet Note are mainly three types of functions namely

(a) **Key Functions** which inter–alia include Administer, Monitor, Coordinate, Regulate and Synergize the functioning of the testing centres under DHI, Capacity building, standardization of testing procedures, Issuance of testing & homologation certificates based on test reports submitted to NAB by the testing centres, To be the repository of technical data, domain knowledge and expertise for providing advice, technical inputs and secretariat assistance for auto policy related issues, Develop skills sets and competencies in the area of automotive R&D and testing etc.

(b) **Core Functions:** which include inter–alia to prepare policies and carry out Accreditation of test labs, Look after the entire spectrum of initiatives and issues related to the electric mobility in automobile sector, Design & Administration of New Vehicle Assessment Program [NVAP], To function as a National Repository of Data relating to Automotive Sector and undertake Analysis, Collaborate with the Road Safety Board under MoRTH, Coordinate R&D Projects funded by various organizations like Cess Funds Projects, Test Facility planning, Upgradation & Expansion for Test Centre readiness, Test Centers co – relation audit and benchmarking, Appellate Body for any test related disputes, Development of Manpower Capability in the areas of emerging automotive technologies, Fostering and promoting exchange with industry and academia. (MoU and international and national exchange programs)

(c) **Facilitative Functions:** which include inter–alia to function as a National Certification Board for vehicles and components and to issue Certificates for vehicles and components based on the test reports issued by the accredited test agencies, Study of feasibility for adoption of International Harmonization of regulations, Publication of standards, Regulations and Information of Public Interest, Promotion of Indian Regulatory system for automotive testing internationally etc.

An incentive scheme to be known as "**DEMAND INCENTIVE DELIVERY MECHANISM (DIDM)**" has been launched to promote and create the demand of electric vehicles in the country effective from 1st April, 2015. National Automotive Board shall be the operating agency for the implementation of the scheme including disbursement of funds for the various components under the overall supervision and direction of Heavy Industry. So far demand incentive provided for about 1,10,000 electric & hybrid vehicles till December, 2016 and about ₹ 131.78 crore has been reimbursed to various OEMs.

4.4.3 Development Council for Automotive and Allied Industries (DCAAI):

This Development Council is under the chairmanship of Secretary, Heavy Industry. Issues relating to the growth of the sector and achieving AMP targets were focused upon. This forum provides an opportunity to identify key areas of concern for which appropriate policy modulations and other identified areas of action can be taken up by various Ministries/Departments of the Government of India.

4.4.4 Auto Cess Committee: Cess on sale of automobiles is levied as per notification issued in 1983 @ 1/8th of one percent in terms of the Industries (Development & Regulation) Act, 1951. As per law, this is to be made available to the Development Council for the benefit and development of the scheduled industry (in this case automotive cess). For sake of administrative convenience this Cess is collected along with excise duty collections but is maintained in a separate head of account. This money is being used by Development Council for Automotive & Allied Industries that is chaired by Secretary, Department of Heavy Industry to fund pre-competitive R&D projects for the benefit of the industry through a transparent process of Cess Committee, which is chaired by Secretary, DHI. The proposals sent are evaluated by a Screening Committee and Technical Sub-committee. All decisions of the Cess Committee and the status of various funded projects are reported to and also discussed in the DCAAI.

4.4.5 UNIDO - ACMA - DHI Cluster Development Project:

The project aims to provide practical services to Small and Medium Enterprises (SMEs) for enhancing the performance of domestic SMEs in the automotive component industry to facilitate their inclusion into national, regional and global supply chain requirements (quality, cost and delivery), to upgrade and enhance the competitiveness of an increasing number of target companies along the supply chain in India, including lower tier suppliers. US $ 337,749 (equivalent to ₹. 2,15,38,254/-)

was released during the current F.Y. 2016-17.

4.4.6 Indo-German Joint Working Group (JWG) on Automotive Sector: Indo-German Joint Working Group (JWG) on automotive sector was 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 constituted on (i) Technology, (ii) Commercialization & Framework Development and (iii) Institutional Cooperation, Training & Skill Development. The last meeting of this Joint Working Group (9th Meeting) was held on February 5, 2016 in India on the side lines of Auto Expo – The Motor Show 2016 at Exposition Mart Limited, Greater Noida, UP.

4.4.7 Automotive Skill Development Council (ASDC):

Department of Heavy Industry has taken an initiative for "Formulation of Skill Development Plan" with a view to make available adequate, trained manpower for sectors like machine tools, heavy electrical, auto industry etc. so as to ensure proper streamlined and high growth rate during the current fiscal and in future. As far as auto sector is concerned, the task of identifying the skill gaps in the industry was undertaken through the specialized group formed during the framing of AMP 2006-16, whereby the industry is expected to require an additional 25 million workforce by 2016. Based on the deliberations held in the Department on various occasions, the Society of Indian Automobile Manufacturers (SIAM) prepared a Detailed Project Report (DPR). Accordingly, an Automotive Skill Development Council (ASDC) has been set up under the oversight of NSDC. ASDC was incorporated as a society under the Societies Registration Act, 1860 in March 2011.

ASDC ACTIVITIES

Conducting Research

1. Continuous research of skill gap in Auto Sector
2. Identifying trades to be taken up for skill development
3. Developing Competency Standards for the Sector with inputs from the Auto industry
4. Benchmarking with international standards
5. Productivity analysis of human resources
6. Maintaining Data base of skilled manpower in Auto Sector

Delivery Mechanism

1. Affiliation of Training Delivery Partners
2. Certifying content/curriculum to ensure alignment with ASDC standards
3. Training the Trainers
4. Providing career guidance to students & assisting in employment

Quality Assurance

1. Developing assessment mechanism for trainers/ students

2. Developing Certification framework as per Occupation Standards

3. Certification of Skill Training course curriculums

4. Accreditation of Training Delivery Partners

5. Accreditation of Assessment Partners

6. Assessment & Certification of Trainers & Students

4.4.8 End of Life of Vehicle (ELV) Policy:

While Ministry of Road Transport & Highways (MoRTH) is reported to be engaged in preparing draft legislation for End of Life of Vehicle Policy in consultation with all stakeholders, the main role of DHI in the matter is to provide/create a proper roadmap, considering all related aspects before such a policy is laid out. There is a need for creating infrastructure for dismantling of vehicle in a scientific and environment friendly manner. There is an immediate need for generating awareness and public opinion for voluntarily giving the old vehicles for dismantling, for which incentives or some policy structures are to be created. There are other issues related to working out compensation structure for vehicle owners, setting environment/ public health/ safety parameters for scrapping, system for collection of vehicles to scrapping/dismantling centres, linkage between recycling or raw materials and location of scrapping centres etc.

Chapter 5

Technology Up-gradation and R&D

5.1 India has established a strong and diversified manufacturing base for the 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 a 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 adapt new technologies through collaboration and in-house R&D efforts. Some of the initiatives in this regard are described below:

5.2 Testing and R&D infrastructure for Automotive Sector

5.2.1 The National Automotive Testing R & D Infrastructure Project (NATRIP) envisages setting up of the following facilities:-

i. A full-fledged Testing and Homologation facility at International Centre of Automotive Technology (ICAT) within the northern hub of automotive industry at Manesar in the State of Haryana.

ii. A full-fledged Testing and Homologation facility at Global Automotive Research Centre (GARC) within the southern hub of automotive industry at Oragadam 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 the State of Maharashtra.

iv. World-class automotive proving grounds with Test Tracks and laboratories/facilities for development testing at Pithampur near Indore in the State of Madhya Pradesh.

v. National Center for Testing of Tractors and Off-Road Vehicles together with national facility at National Centre for Vehicle Research & Safety (NCVRS) for Accident Data Analysis and Specialized Driving Training in northern part of the country at Rae Bareli in the State of Uttar Pradesh(*Being adjusted to other centres of NATRIP as per CCEA Approval in July 2016*).

vi. National Specialized Hill Area Driving Training facility at National Institute of Automotive Inspection, Maintenance and Training (NIAIMT) and also In-Use vehicle management Centre at Silchar in the State of Assam.

5.2.2 Approved Funding Pattern

The Cabinet Committee on Economic Affairs (CCEA) in the month of July, 2016 has approved the second revised cost estimate of ₹ 3727.30 Cr.on account of the Foreign Exchange Variation, Statutory Levies, Rise in Input Costs, Other Factors like change in Scope of Supply etc as per the following funding pattern:

A. Plan Support by the Government		
By way of grant	₹	2628.17 crore
By way of loan	₹	780.35 crore
B. User Charges	₹	50.00 crore
C. Interest Accrued	₹	264.43 crore
D. Liquidated Damages	₹	4.35 crore
Total Cost	**₹**	**3727.30 crore**

5.2.3 Research & Development and Technology Up-gradation

NATRIP Centres will not only cater to the requirements of global automotive test standards but will also house several "Centres of Excellence" for advanced research in emerging areas of technologies. "Centres of excellence" will facilitate utilization of India's strengths in IT and electronics to usher the Indian automotive capabilities into the next generation.

The Centres of Excellence for Research & Development under Natrip are:

Centre	Centre of Excellence Facility (CoE)
ICAT Manesar	Components
	Noise, Vibration and Harshness
GARC Chennai	Passive Safety
	Electromagnetic compatibility
	Infotronics
ARAI Pune	Fatigue
	Power train
	Materials
NATRAX Indore	Vehicle Dynamics
	R&D Tracks

5.2.4 NATRIP facilities will cater to the complete process of development of new components including:

i. **Research strategy:** markets targeted and investment/outsourcing of R&D Activities

ii. **Concept development:** styling, design and engineering.

iii. **Product development:** materials and prototyping.

iv. **Industrialization:** cost reduction, quality improvement.

v. **Product life:** quality and fatigue

All NATRIP R&D test centres will have world class test facilities and also aim at attracting customers from various parts of the World. The centres will also involve in advanced research in the areas mentioned above and will have collaboration in technology up gradation.

5.2.5 The current status of various facilities planned under NATRIP at the respective centres is as under:-

I. **ICAT, Manesar:**

1. Powertrain Lab consisting of Vehicle Test Cell, Engine Test Cell, Climatic Vehicle Test Cell, Mileage Accumulation Chassis Dynamometer (MACD) Lab for 2&3 wheelers and 4x4 wheelers and Sealed Housing Evaporation Determination (SHED) facility for 2 wheelers and Passenger cars are operational.

2. Fatigue and Certification Lab consisting of X-poster, HF MAST, MAST for component and Vibration Shakers with Climatic Chambers are operational.

3. The Passive Safety lab comprising of Pedestrian & Crash Core Facilities is operational.

4. Pendulum Test Rig for Plastic Fuel Tanks, Head Restraint Test Rig, and Interior Fitment Test system, Window Retention Test Rig, Knee Contact Test Device, Projection Measurement Device, Manikin and Universal Pneumatic Actuator, Side door strength test rigs, Hazemeter, Demisting and Defrosting, Small Environmental Chamber under the Certification Lab are operational. The up-coming facilities are Environmental Chambers, Tilt Test Platform, Seatbelt anchorage test rig, Resistance of seats for buses coupling devices test rigs, Cab pendulum test rig, Vehicle vertical orientation test set-up.

5. Rapid Prototyping facility for Metal and Plastic Prototypes under the Component Lab is operational.

6. CAD-CAE lab comprising of software like Abaqus, Hyperworks, CATIA, Siemens, NASTRAN, Altair, MSC Fatigue and Adams isoperational.

7. MATLAB, Measurement Calibration & Diagnostic Tools (MCDF), Hardware in Loop (HIL) system for Single ECU test bench for Powertrain & Chassis, is commissioned.

8. The Semi Anechoic Chamber for component is commissioned while the Vehicle Semi Anechoic Chamber under Electromagnetic Compatibility (EMC) lab is in advance stage of Completion.

9. Civil works for the Noise, Vibration and Harshness (NVH) Lab is completed. The installation and commissioning of the equipment is yet to be started.

10. Test Track Instrumentation such as Pass by Noise measurement device, the Data Acquisition System, Vehicle Dynamics Sensors, Fuel Flow meter, Steering Wheel Sensors

and Longitudinal Speed Sensors are commissioned.

11. Homologation Tracks along with associated utilities is partially operational while remaining work is under progress.

II. Chennai :

1. Mileage Accumulation Chassis Dynamometer (MACD) lab for 2&3 wheelers and 4x4 wheelers is operational. The civil works for the Powertrain lab building are at advanced stages of completion.

2. Fatigue lab consisting of Vibration Shakers and Environmental Chambers, Universal Test Bench(UTB) for cyclic actuators,Multi Axial Simulation Table(MAST) with Climatic chamber and Four Poster areoperational.

3. Certification lab consisting of Interior Fitting Test Rig, Head Restrain Test Rig for Seats, UTM, Bumper Pendulum, Fuel Tank Pendulum, Window Retention Test Rig, Durability of Retractor, Microslip, G-lock Test Rig, Pneumatic Coupling and Bus Window Cyclic Actuators has been commissioned. The upcoming facilities under Certification Lab are Tilt Test Platform, Seat belt anchorage test rig, resistance of seats for buses, Coupling device test rigs, Cab pendulum test rig, Environmental Chambers, Demisting and Defrosting Facility, Side Door Strength Rig, Hazemeter, Vehicle Vertical Orientation Test Set-up.

4. Pedestrian lab and Air Bag Lab with Climatic Chamber under the Passive Safety Facility is operational. The civil works for the Advanced Passive Safety Lab is under progress.

5. The installation of the Vehicle Semi Anechoic Chamber and Component Semi Anechoic Chamber under the Electromagnetic Compatibility (EMC) Lab is under progress.

6. CAD-CAE lab with software such as SIEMENS NX, CATIA V6, MSC Fatigue and Altair Hyperworks is operational.

7. MATLAB, Measurement Calibration & Diagnostic Tools (MCDF), Hardware in Loop (HIL) system for Single ECU test bench for Powertrain & Chassis, is commissioned.

8. The External Noise Track, Steering Pad and Hill Test Track are functional. The construction work of remaining Test Tracks such as Anti Braking surface Test track, Grade ability Test track, Oval Track and External Noise Track (ENT) are in advanced stage of completion.

9. Test Track Equipment such as Pass by Noise measurement device, the Data Acquisition System, Vehicle Dynamics Sensors, Fuel Flow meter and Longitudinal Speed Sensors are commissioned.

10. Photometry lab comprising of various facilities such as Goniophotometer, Integrating Sphere, Reflectance and Transmittance measurement and Profile Projector is operational.

III. NATRAX, Indore:

1. Powertrain lab comprising of Vehicle Test Cell is operational.

2. CAD-CAE lab is commissioned at site and softwares like Siemens and Adams Car are available for research & development purpose.

3. Vehicle Dynamics Lab comprising of Kinematic & Compliance (K&C) Machine and Steering, Elastomer and Damper Test Rig is operational.

4. Test Track Equipment such as Pass by Noise measurement device, the Data Acquisition System, Vehicle Dynamics Sensors, Fuel Flow meter, Steering Wheel Sensors and Longitudinal Speed Sensors are commissioned.

5. Construction work of the Other Test Tracks including Dynamic Platform, Straight Braking Track, Test Hills Test Track, Accelerated Fatigue Track, Gravel and Off-Road Track, Dry Handling Circuit, Comfort Track, Handling Track for 2/3 Wheelers, Sustainability Track, Wed Skid Pad and External Noise Test Track are under progress& advanced stage of completion. LOI has been issued for the work for High Speed Track.

IV. ARAI Pune:

1. Powertrain lab facilities including Climatic test Cell, Vehicle Test Cell, SHED facility and Mileage Accumulation Chassis Dynamometer have been completed.

2. The Fatigue Lab comprising of Electrodynamics (ED) Shaker with Climatic Chamber, Multi Axis Simulation Table (MAST) for component, Drive-in four poster is operational.

3. The Passive Safety Lab comprising of Crash Core test facility, Sled Facility and Dummy Calibration facility is operational.

V. VRDE, Ahmednagar:

1. The Electro Magnetic Compatibility (EMC)lab is operational.

2. The Anti-lock Braking System (ABS) test track is operational.

VI. NIAIMT, Silchar:

1. The I&M (Inspection and Maintenance) station comprising of fixed and mobile lanes is operational.

2. The Mechanic Training Institute (MTI) is operational & conducting course. The Driving Training Institute (DTI) comprises of 'Driving Simulator' along with one Hill driving training track and one flat road training track and is also operational & conducting courses in association with TATA Motors limited under MoU signed with NATRIP.

VII. NCVRS, Raebareilly :

1. The Cabinet Committee on Economic Affairs (CCEA)in July, 2016 has approved the adjustment of planned facilities under NCVRS, Raebareli Centre to other NATRIP centres.

2. As part of the NCVRS project, a National level Accident Data Analysis Centre (ADAC) is operational for collection accidental data. A MoU has been signed between NATRIP and IIT Delhi for collection and analysis of accident data.

3. ADAC has also signed a MoU with Renault Nissan Technology and Business Centre India (RNTBCI) for analysis of collected data from accidents by ADAC.

5.3.1 The Automotive Research Association of India (ARAI)

Located in the picturesque surroundings in the western part of Pune, Maharashtra, India and built on approximately 15000 sq. mts. Area. The Automotive Research Association of India (ARAI) houses various test facilities.

ARAI is a co-operative research organisation 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 Industries and Public Enterprises and recognised by the Department of Scientific and Industrial Research. It is an ISO 9001-2008, ISO 14001-2004, and OHSAS 18001-2007 certified organisation and is also accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL) for its major certification facilities.

ARAI is registered as a society under the Societies Registration Act XXI of 1860 and major automobile and ancillary manufacturers are its members. The Governing Council consists of members from Indian Automotive Industry and representatives from Government of India.

ARAI has been playing a crucial role in assuring safe, less polluting and more efficient vehicles. It provides technical expertise in R&D, testing, certification, homologation and framing of vehicular regulations.

The state-of-the-art Research & Development and Testing facilities at ARAI are increasingly utilised for sponsored and in-house Research & Development projects as well as domestic CMVR Type Approval and export homologation activities.

An experienced and well trained human resource of 680, which includes regular, trainee & temporary contractual employees, is ARAI's main strength. Out of this, 569 are technical and most of them have been trained in various fields of advanced automotive technology.

5.3.2 SIAT 2017

Symposium on International Automotive Technology (SIAT) is a benchmark event organized by ARAI biennially. SIAT serves as an important forum for exchange of ideas and brainstorming for the automotive industry. Over the years, the event has grown in stature and is now considered as a prestigious automotive event in the global automotive fraternity.

Fifteenth edition of Symposium on International Automotive Technology (SIAT 2017) is being organized from 18th to 21st January 2017 in association with SAE International USA, SAEINDIA and NATRiP at ARAI's picturesque campus in Pune (India).

This forthcoming edition of SIAT assumes special significance, since ARAI turns 50, a month prior to this symposium's schedule. This being our 50th year of serving the nation, year-long programmes have been planned to engage with all stakeholders of ARAI. SIAT 2017 is going to be a memorable one, considering the grand finale of ARAI's Golden Jubilee program.

The central theme of SIAT 2017 is ***"Smart, Safe & Sustainable Mobility"***.

SIAT 2017 will focus on recent advances in various automotive areas such as Safety, Emissions, Engines, Noise, Electric Mobility, Alternate Fuels, Electronics, Intelligent Transportation, Structural Reliability & Vehicle Dynamics, Materials, Simulation & Modelling, Global Regulations, etc. It will also bring to fore innovative ideas and solutions in automotive technologies to meet future challenges.

SIAT provides a common platform for national and international experts to share their thoughts in various fields of the automotive technology. Overseas experts will get a chance to interact with counterparts from the Indian automotive OEMs and component industry, and explore tie-ups and possible business opportunities.

SIAT EXPO 2017, a grand exposition of automotive technology & products as well as automotive testing, validation, tools and engineering services is being organized concurrently with SIAT 2017. It offers appropriate platform for automotive and allied companies to display their products / technologies / innovation / services through various stalls.

The exposition, with over 200 exhibition stalls, will attract automotive OEMs, Tier-I, Tier-II and Tier-III suppliers, equipment providers, AD/CAM/CAE tool providers, Technologists, Engineering service providers and test organizations, to show case their products and service capabilities. Besides the symposium delegates, this exposition is open to all automotive personnel and interested individuals and will be an excellent opportunity for promotion of business, networking and dissemination of information.

5.3.3 Performance

In the financial year ended on 31st March 2016, total income of ARAI was ₹ 257.99 crore, out of which operational income was ₹ 211.15 crore. This year, till 30th September 2016, total income is ₹ 130.21 crore. Anticipated total income for the financial year 2016-17 is ₹ 257.05 crore.

5.3.4 R&D Project

Under its research programme, ARAI undertakes various R&D projects, based on relevance and current needs of the industry, which also aim to build competence and acquisition of technologies. Following R&D projects, were successfully completed during Oct'15 to Sept'16 period.

DHI Funded Cess Project:

- Material compatibility and emission performance measurement with Ethanol blended Gasoline (E20)

Internally Funded:

- Design & development of High Performance 3 Cylinder CRDI Euro 4 Diesel Engine
- Development of Transmission suitable for LCV application
- Building a Prototype EV Quadri-Cycle for Intra-city Public Transport application
- Building competency in Steering System design and optimization
- Building competency in Chassis Frame design and optimization
- Building competency in Air Suspension System design and optimization
- Statistical Energy Analysis for noise control

Ongoing R&D projects funded by DHI under Cess Funding:

Sl. No.	Name of Project	Expected Project Completion Date
1	Development of Off-line and Real-time Simulator for EV and HEV application (#)	Oct'16
2	Study and development of Lightweight Forging Process for automotive components	Mar'17
3	Development of Lightweight Bus Prototype with Aluminium (AL) Superstructure for Indian City application, meeting Bus Body Code (AIS:052) requirement	Jun'18
4	Development of Duty Cycle of Public and Goods Transport Vehicle separately (intercity bus and truck application) and arrive at guidelines for estimating vehicle operating cost models with respect to pavement conditions	Jun'17
5	Study of multi-disciplinary approaches / challenges in light weighting / performance improvements with focus on design optimization of components, systems	Sep'16
6	Development of Advanced Low Temperature Diesel Combustion (LTC) System to achieve Euro V & Euro VI emission with considered conversion efficiencies of simplified after treatment with improved fuel economy	Dec'18
7	Supercharging of Small (Single and Two Cylinder) Diesel Engines	Jun'17
8	Source apportionment of PM2.5 & PM10 of Delhi city for identification of major sources	Jun'17

 # - Denotes Consortium Project

Ongoing R&D projects funded by DHI under FAME-India Scheme:

Sl. No.	Name of Project	Expected Project Completion Date
1	Preparation of Draft Specifications and Standard for AC/DC Charging Stations for xEV Application under Indian Conditions	Oct'16
2	Establishment of testing infrastructure for Certification Testing of xEVs	Apr'18

Ongoing Internally Funded R&D Projects:

Sl. No.	Name of Project	Expected Project Completion Date
1	Development of Off-line and Real-time Simulator for EV and HEV application (#)	Oct'16
2	Study and development of Lightweight Forging Process for automotive components	Mar'17
3	Development of competency for a Parallel Hybrid Small Commercial Vehicle Part 1: Development of Powertrain Control Systems for a Parallel Hybrid Small Commercial Vehicle	Jan'18
4	Development of competency for a Parallel Hybrid Small Commercial Vehicle Part 2: Competency development for Control Strategies and Transmission System for Parallel Hybrid Small Commercial Vehicle	Jul'18
5	Development of Direct Injection Technology for CNG Engine	Aug'17
6	Development of Adaptive Front Lighting System (AFS)	Jan'17

5.4 Fluid Control Research Institute (FCRI), Palakkad, Kerala

5.4.1 Fluid Control Research Institute, (FCRI) Palakkad is a premier facility in flow measurement related service and solutions. the flow Centre of FCRI hosts traceable International standards for flow measurement, which are the most comprehensive set of flow testing facilities in the world, and provide unique resources for industry in India. All facilities are available for calibration evaluation and R&D activities. FCRI has developed strong links with the Oil & Gas Sector, Water Industry, Power Industry, Process/ Manufacturing Sector, Automotive Sector, R&D organizations etc. by undertaking joint projects providing quality services, HR Development etc.

5.4.2 The Institute undertakes sponsored R&D projects and as of now has completed 161 as on March 2016 projects making it one of the specialized fluids Engineering Research Institute dedicated to approve technological services such a consultancy, testing, certification and training for private and pubic sector organizations.

5.4.3 The Institute acts as a National Certifying Body for flow measuring systems/electronics and instrumentation. FCRI assists in acquiring quality conformance as per the norms of ISO 9000/ISO17025 series and for execution of sponsored R&D projects.

5.4.4 The total operational revenue of FCRI during the financial year 2015-16 was ₹ 23.18 crore against the revenue of ₹ 18.76 crore earned during the year 2014-15. In internal resource generation, FCRI has achieved more than 100 percent growth during last 6 year as compared to 11.28 crore generated during 2009-10.

5.4.5 Fluid Control research Institute (FCRI) has initiated action for recognizing FCRI as designated laboratory (National Metrology Institute).

5.4.5 FCRI was awarded an order from M/s NPCIL, Koodamkulam for testing of Double Check Valve (DCV) in cold and hot conditions. This was an investigative experimental study to ascertain the probability of failure at operating conditions. DCV is an essential part of the nuclear power plant and is a major element in the safety loop. The performance of the valve to the required specification was very critical in commissioning of the 1000 MW power plant (second stage) at Kudankulam. The tests were completed successfully. FCRI received accolades from BARC for its involvement in the reliability testing of Double Check Valve (DCV) for Kudankulam Nuclear power plant.

5.4.6 FCRI Received an order worth ₹ 350 Lakhs for Design, Manufacture, Supply, Installation and commissioning of water meter test bench at Byculla Meter Workshop of MCGM. FCRI was awarded with an order from M/s GAIL (India) Ltd., Noida for third party audit of metering of NG pipeline network (Zone-4-South Zone) and also for the auditing of natural gas measurement system for GAIL at Ahmedabad region and both orders were successfully executed. FCRI has conducted a study on Loss of Unaccounted for Gas (LUAG) for M/s. Sabarmati Gas Ltd. The report was well accepted. FCRI has ventured to this new area and the success of the project is expected to create more of such business avenues.

5.4.7 Under the HRD programmes, the institute has organized 17 National programmes and 4 International Training Programmes and 3 PG certificate programmes during 2015-16. Total number of 54 foreign nationals took part in the above 4 International Training Programmes and 252 numbers of trainees were participated in the other programmes.

FCRI has the following accreditations from National/International agencies for its facilities:-

- **NABL (National Accreditation Board for Laboratories)** - under ISO 17025 norms for calibration/testing of fluid flow products, mechanical, electro-technical and thermal calibration.

- **BIS (Bureau of Indian Standards) -** for testing samples of products like water meters under BIS certification mark scheme.

- **DST (Department of Science & Technology)** - as R&D Institute in Fluid Flow Measurement.

- **Under Writers Laboratory Inc., USA**- for testing Fire Fighting equipment & product safety certification.

- **W&M (Department of Weights & Measures)** -conducting "Model Approval" tests as per OIML Standard for flow and volume measuring instruments.

- **Central Pollution Control Board**- certification of Petrol and Kerosene generator sets for implementation of noise limits.

- **CCE (Chief Controller of Explosives, Nagpur)** -to conduct tests on safety relief value at FCRI (as per ASME/ API).

- **IFE (Institution of Fire Engineers New Delhi) -** for Hydraulic qualification test on firefighting equipments.

- **Ministry of External Affairs --** for conducting Technical Training Program for Foreign Nationals in the field of Fluid Flow Measurement & Control Techniques and Oil Flow Measurement under ITEC/SCAAP/ TCS of Colombo Plan.

- NMI, The Netherlands certifies 20 bar Closed Loop Air Test Facility.

- **Nuclear Power Corporation of India Limited**- for seismic analysis of power plant equipment.

5.5 R&D Initiatives by the CPSEs.

Some of the technology up- gradation and R&D efforts of the Central Public Sector Enterprises under the Department of Heavy Industry are detailed below.

5.5.1 Bharat Heavy Electricals Ltd. (BHEL)

Research and Development (R&D) and Technology Up gradation

- BHEL has developed and supplied 24 kV PR Class Oil Filled & Dry Type Current Transformer (CT) for Power Grid NE-Agra HVDC Project. A special anti-remanence test was conducted by third party as per IEC 61869 and results were accepted by ABB Sweden and PGCIL.

- BHEL has developed water cooled IGBT Power stack for high power applications of STATCOM and industrial drives up to 5 MVA capacity. With this BHEL can supply compact STATCOM and industrial drives up to 5 MVA with 3-level power circuit topology using water cooled IGBT power stack.

- BHEL has developed a new variant 67.647 MVA, 57.75 MW, 13.8 kV, 3600 rpm Air Cooled Turbo-Generator with overhang brushless exciter for industrial application. The development has resulted in addition of a new variant (suitable for 60 Hz application) of air cooled TG to BHEL's existing portfolio of Turbo generators for industrial application.

- BHEL has developed 5.925 MW, 11 kV, 10 Pole slow speed ID fan motor which is the largest rating designed till date in 10 pole construction. The developed motor achieved efficiency better than global benchmark at full load for such ratings. This development has enabled BHEL to supply complete range of large rating slow speed ID fan motors for 660 MW & 800 MW super critical thermal power plants applications. Four nos. have been supplied for NTPC Gadarwara.

- BHEL has developed 4.7 MW, 11 kV, 16 pole vertical synchronous motor with non-skew stator in salient type construction for lift irrigation sector. 12 nos. of such motors have been supplied to Megha Engineering and Infrastructure Limited (MEIL).

- For industrial turbine application BHEL has developed a new variant of 14 MW, 11 KV, 4 Pole Closed Air Circuit Water Cooled (CACW) alternator in ribbed shaft construction.

- BHEL has developed a compact 1850 kW, 2 pole compressor motor with an effective ventilation arrangement incorporating state of the art cooler and new generation high discharge blowers for India Glycol Ltd as a substitute for the imported machine being used by them.

- To cater to power requirement from 160 MW to 200 MW range for industrial application, BHEL has developed an efficient design of two-cylinder steam turbine module which incorporates latest design features like advanced blading and complaint seals (brush seals).

- BHEL has developed a Remote Terminal Unit (RTU) with latest industry communication protocols for SCADA. This is a vital component of Distribution Management System (DMS) in Smart Grid to provide remote monitoring and control of a utility's distribution assets and networks.

- BHEL has developed a robot trajectory tracking system for welding applications which provides additional intelligence to the robot to track the path compensating dimensional changes due to welding process using a laser sensor.

- BHEL has developed process for manufacturing Nano - modified epoxy composites for HV Insulation Products. This development has resulted in superior electrical insulation properties like AC breakdown voltage (~28% higher), dielectric permittivity (~9% higher), higher electrical resistivity etc. and has potential to reduce weight and size of insulation materials in products like Seal Off Bushings (SOB), Current Transformers (CT), and Potential Transformers (PT) etc.

- BHEL has entered the new market segment of Thermal Energy Storage products by successfully developing multi channeled honeycomb ceramic blocks. Successful completion of field performance has resulted in placement of order by TATA Steel and 1000 nos. honeycomb blocks have already been supplied.

- BHEL has developed materials for high strength nano structured honeycomb grinding rolls for coal pulverization to enhance life of grinding rolls. This development has resulted in improvement in life of bowl mill rolls from 3000-4000 hrs. to 12000 hrs.
- Developed an energy efficient new product IGBT based 1MW High Performance Low Voltage Variable Frequency Drive (VFD). The development has resulted in energy savings, reduced wear and tear and reduced maintenance cost of motor.
- Designed & developed vertical type vacuum degasser for mud handling system of Oil Rigs. This has resulted in reduction in cost by 60% and elimination of dependency on foreign vendor.
- Developed and demonstrated non-contact slip ratio measurement system in high voltage porcelain manufacturing. The development has resulted in reduction in error and elimination of manual interference for measurement.
- Developed Expended life calculation software for HP & IP Turbines of Super Critical Power Plants.

Major R&D/ Technology upgradation achievements in 2016-17 upto Sep'16

- Design and manufacture of "Vibration Monitoring System (VMS)" for pump applications.
- Developed tooling for Investment Casting of GT Frame 5 Stage- II cutter teeth bucket.
- Developed high temperature wear resistant coating on Ni-based super alloy material for Advanced Ultra Supercritical (AUSC) Steam Turbine control valve components.
- Developed Pre-cast refractory liners for combustor area in Circulating Fluidized Bed combustion (CFBC) Boilers resulting in reduction in the installation time & enhancement of life of refractory liners.
- Developed 790 kW, 6.6 kV, 2 Pole, H-compact Motor with self-lubricated sleeve bearing in 450 mm centre height for compressor application for hazardous area.
- Developed Ceramic Honeycomb based Volumetric Receiver capable of receiving solar radiation at 1200 deg centigrade with fast charging/ discharging capacities and its characterization for heat-exchanger applications in Concentrated Solar Power (CSP) plants.
- Commissioned in-house designed Electro-Hydraulic Governing (EHG) System developed in 200 MW Obra

Unit-10 LMZ set addressing R&M business.

- Successfully demonstrated an Integrated multi-feed Gasifier with gas clean up system and producer gas engine for power generation for capacity of 25 kW power generation having application in remote locations where conventional power is not available.
- Designed and commissioned India's first 1 MW seasonal tiltable canal top Solar PV plant at Bhimavaram, Andhra Pradesh to collect maximum solar radiation to generate maximum power.
- Successfully developed Procontrol Interface (PCIF) for upgradation of Procontrol Human Machine Interface (HMI) of old WSPOSE (Work Station based Processors Operated Supervisory Environment) Human Machine Interface (HMI) system to NTPC Kayamkulam, eliminating dependency on collaborators.
- Successfully developed Two cylinder reheat steam turbine for 70 MW rating through advanced blading, brush seals and optimization of thermal cycle to improve heat rate.
- Developed Aero-Mechanical Design of Axial flow compressor for process applications.

Developments projected in 2016-17 upto March 2017

- Development of model software for Boiler and Auxiliaries for Graphic User Interface based modelling tool for Thermal plant simulator.
- Development of AC Draw works for E1400 rig
- Development of Micro-Processor based controller for 30 kW Permanent Magnet Alternator (PMA) for Railways
- Development of 150 kW Permanent Magnet Motor for Electric Vehicles (Buses)
- Development of solar power based grid connected EV charging station.

Information Technology

Integrated online business applications have been implemented in Manufacturing units and Regional Head Quarters of Power Sector. The company has leveraged IT to automate its Business Processes cutting across various functions such as Engineering, Manufacturing, Materials Management, Production, Site operations, Project management etc. by suitable deployment of both SAP and in-house developed applications.

Human Resource Development

Corporate Learning & Development-HRDI and HRDCs continue in their endeavor of providing quality services to its stakeholders like providing vocational training, publishing newsletter and magazines, conducting customer trainings.

Corporate Governance

BHEL signed a MoU with Transparency

International to adopt 'Integrity Pact'. BHEL corporate structure, business procedures and disclosure practices have attained a sound equilibrium with the Corporate Governance Policy resulting in achievement of goals as well as high level of business ethics.

Social Responsibilities

BHEL is providing financial support for education of more than 20,000 school children in 23 schools located in the premises of the township of various Units of BHEL viz. Haridwar, Jhansi, Bhopal, Ranipet, Hyderabad, Trichy and Jagdishpur.

In addition, BHEL has provided support for "Installation of 25 Clusters comprising 276 Bio-Digestor toilets on the banks of river Ganges near Haridwar & Rishikesh including safe & clean drinking water facility at each location.

5.5.2 BHEL-EML RESEARCH & DEVELOPMENT AND TECHNOLOGY UPGRADATION

Major R&D/ Technology Upgradation Planned / Achieved Duringthe Year.

- Development of Traction Motors for Electric Vehicles, on-going project
- Development of String Monitoring Units for Solar Power Projects
- Development of Marine Alternator for strategic application

5.5.3 Rajasthan Electronics & Instruments Limited, (REIL)

The Research & Development (R&D) activities of the Company are aimed at achieving its corporate mission, by addressing customer expectations through innovation of new products and up-gradation of existing products/ services to deliver competitive, economic and reliable products/solutions while protecting the intellectual property rights.

The Company has a Research & Development centre, equipped with latest equipment and competent manpower to meet the organization needs. The R&D centre is recognized by Department of Scientific Research, Ministry of Science & Technology since 1985.

R&D has recently developed products like GPRS based Data Processor Unit, Next Generation DPU which has unique feature to send online data to central location at the time of pouring of milk. This year R&D is also engaged in energy efficiency sector by developing Centralized Control and Monitoring System (CCMS) for LED street lights.

Major developments projects undertaken in FY 2015-16 include following:

(a) GPRS based Smart Data Processor Electronic Milk Tester(SDPEMT) & Data Processor Milk Collection Unit (DPMCU)

(b) Next Generation DPU(NG-DPU)

(c) Centralized Control & Monitoring System

(d) Jammer

(e) LED street light retrofitting project

In addition to the in-house development, the

Company is working with recognized Research & Development centres / institutions/ organizations for development of products/projects jointly. The following agreements were signed during 2015-16.

- Agreement with Milkotronic, Bulgaria for In-house manufacturing of Ultrasonic Milk Analyzer.
- NDA with NIDEC Corporation, Japan for development of BLDC Ceiling Fan, BLDC motor based pump and controller for Solar Water Pumping application.
- NDA with NM Automation for currency Inspection system.
- NDA with SATEC for development of Solar PV Project of MW size.

Major Ongoing Projects in the Financial Year 2016-17 are as follows :

1. RMU- Remote Monitoring Unit for solar water pumping system
2. Modem to GPRS based DPMCU
3. Hybrid Solar Electric Vehicle Charger
4. Solar EV Charging Station (SEVCS)

5.5.4 HMT Limited

HMT has established R & D Centres in all manufacturing units to meet the needs of design & development of different products, with a focus to improve product technology and enhance product competitiveness.

R&D has been a focus area for the company in its endeavour to serve the customer better and develop new products. R&D activities are carried out in each subsidiary with particular reference to customer needs in product technology, quality, reliability and price competitiveness. Upgrading the existing products with additional features, design optimisation and improvement in aesthetics are the major thrust areas. The initiative has resulted in many new products and also up-gradation of existing products. Highlights of R&D activities carried out / planned in the different product areas of HMT's domain are as below:

i) Up gradation of Milk Homogeniser of Capacity 5000 LPH from manually operated to hydraulically operated.

ii) Manufacture of Butter Making Machine of 1500 to 2500 kg/hour capacity.

5.5.5 HMT Machine Tools Limited

All the manufacturing units of the Company have its own R&D facilities 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 the following products during 2016-17.

R&D is a continuous process and closely linked with the various operations of the Company and benefits could be derived as a result of the above R&D. Consistent efforts are being made in- house to design, develop and manufacture new products as per technologies available as well as state-of-art and technology centric special purpose machines. Technology development plans are focused to facilitate reduction in cost of production by value engineering, thereby providing viable import substitution as well as Joint Working Arrangement with overseas foreign institute & IITs' etc.

In view of design & development for analysis of "Headstock of four Guide way lathe" and Development of the Turn Mill Centre with Y-axis SB CNC 30 TMY" HMT machine Tools Ltd., entered with Technical Agreement with International reputed firm M/s Fraunhofer for Technology Transfer. Technical Collaboration Agreement (TCA) has been signed between M/s Fraunhofer, Germany & HMT Machine Tools Ltd.

HMT Machine Tools Limited and M/s Junker, Germany entered into MoU for design and development of high speed grinding machines, orbital grinding machines and other grinding machines.

The development of the new products will enable the Company to meet the competition (both indigenous and overseas), also to meet the market demand for technologically competitive products with automation requirements & low cost effective products to user sectors for improved productivity.

HMT Machine Tools produced Flexible Manufacturing System under Research & development for Training Centre in view of bridging the gap between the classroom academics and the current industry technology.

❖ **Products Development and Technology Up gradation plans.**

➢ Design & Development of CNC Gear Grinding Machine.

➢ Design & Development of Low cost CNC Lathe and Vertical Machining Centre.

5.5.6 NEPA Limited

Company's R&D Centre is registered with Department of Science and Industrial Research (DSIR), Ministry of Science and Technology, Government of India. Centre is equipped with required facilities and company is going to procure latest equipment for technology up-gradation and producing writing & printing grades. Experiments and trials in R&D centre have facilitated production of good quality newsprint with indigenous raw materials only. This has been achieved through several in house R&D experiments, trials and process modifications/alterations.

Quality inspection of raw materials with respect to the specifications is done by well trained staff to ensure good quality furnish mix for manufacture of newsprint.

Quality of finished product is monitored round the clock by well trained Quality and Technology department team to ensure that best quality products are dispatched to our valued customers. Customers' complaints are attended on top priority to resolve the problems.

5.5.7 Hindustan Paper Corporation Limited (HPCL)

Research & Development (R&D) at Nagaon and Cachar Paper Mills:

Applied R&D activities already done

- Plant trial of alkaline sizing with AKD replacing of conventional acid sizing.
- Laboratory scale trial to replace Basic

dye with Direct/Pigment Dye.

- Laboratory scale trial for decolonization of E. filtrate by using Ferric Chloride
- Laboratory scale use of Formaldehyde for partial replacement of chlorine dioxide in order to minimize bleaching cost.
- Laboratory/Plant scale trial to produce high bright/white paper with the use of different brightness/whiteness enhancing additives.
- Optimization study for cooking of bamboo with different percentage of wood.

5.5.8 Hindustan Newsprint Ltd (HNL)

R&D works on the following projects were carried out:

i) Suitability of crude Palm oil as deinking chemical.

ii) Characteristic of pulp from flowered bamboo for different storage periods in comparison to green bamboo.

iii) Effect of Boric acid treatment in prevention of deterioration of flowered Bamboo on storage.

Technology Absorption, Adaptation & Innovation at NPM & CPM

1. Efforts in brief made towards technology absorption, adaptation and innovation:

(i) Alkaline sizing of bamboo pulp replacing conventional acid sizing at plant level.

(ii) Cooking & bleaching of different wood species to find out their palpability & bleach ability for use in appropriate ratio with bamboo.

2. Benefits:

i) Improvement in shade of paper, reduction in drop of brightness, curbing ageing property, increase in whiteness.

ii) Better availability option for use of alternate raw material in the furnish during crisis of bamboo.

Technology Absorption, Adaptation and Innovation at HNL

The efforts are limited to in-house R&D activities.

5.5.9 Heavy Engineering Corporation Ltd. (HEC)

Most of the products are tailor made as such R&D activities of the company are limited to product development based on orders received and customers requirement. Adverse economic scenario in Capital Goods Sector affected the order inflow and Company could not receive orders for new products/ product with additional features requiring development activities.

5.5.10 Andrew Yule & Company Limited (AYCL)

The R&D activities carried out by the company's different Divisions were as follows:-

(i) Steps have been taken for

(a) Initiation of New Product in the financial year 2015-16 as follows:

(i) Tube Axial Fan;

(ii) High Flow Low Pressure (HFLP) Centrifugal Fan;

(iii) Mine Ventilation Fan.

(b) Design optimization to reduce the weight of the Complete Industrial Fan

(c) Elimination of use of Stiffener during impeller manufacturing in order to reduce the process costs in the form of saving of material and man hours.

(d) Introduction of Roller stand in the production process for welding of impeller which reduce the man hour requirement.

(e) Elimination of Truing/Grinding process on selective basis.

(f) Improvised method of fixation of Hub during impeller building.

(ii) Benefit derived like product development, cost reduction or import substitution:

(a) Company have a business projection of 300 lakh in H2 of 2016-17 in Tube Axial Fan.

(b) The benefits out of other costs reduction measures would accrue in 2016-17.

5.5.11 Instrumentation Ltd. (IL)

The company is continuously making efforts to update technology in all spheres of its activity to keep pace with rapid strides in manufacturing and Information Technology. Following products have been successfully developed and executed by PU during 2015-16.

A. Control Valve

1. **VSP(N) & VSP(M) - Single seated Pilot operated valve models** were developed for High pressure & High temperature applications with Class V seat leakage thus avoiding the use of HT seal.

2. **VA9DS – New actuator model + Manual hydraulic override** for high thrust applications.

3. **Valve flow Capacity improvements** are carried out for the following models

Sl.No.	Model
1	16" VSC (M) with lift 175 mm Equal 1% Cv existing : 2000 Cv achieved in new design: 2560
2	16" VSC (M) with lift 175 mm linear Cv existing : 395 Cv achieved in new design: 430
3	14" VSC Cv existing : 1600 Cv achieved in new design: 1960

B. Butterfly valve

1. Double Eccentric type Butterfly valve

a) VBS –DE- 600 with B + RS 200 Electrical actuator

b) VBS –DE- 800 with B + RS 200 Electrical actuator

c) VBS – DE-900 with B + RS 400 Electrical actuator

2. 16" VFR – Flow wing rotary valve (Flanged End) ANSI 300 Full Port with PC 2014 is developed.

3. **VBS 450 Frozen Seal Butterfly valve** for **IGCAR Kalpakkam** for Liquid sodium application as an **import substitution.**

C. **Bellows Sealed valve**

1. DN 15, DN 50 BSV – **New Valves for Liquid Sodium applications** with Manual and pneumatic actuators are developed for **IGCAR Kalpakkam.**

D. Power Cylinders

1 **Manual Override facility** developed for PCLT model Power cylinder.

2 **Top Trunnion mounting** developed for PCLT & PCC model Power cylinder developed up to 20" especially for Butterfly valves.

5.5.12 Bharat Pumps and Compressors Ltd. (BPCL)

Company is committed for continual up gradation and design improvement of its products to face stiff competition in the market and also for meeting objective of client satisfaction. The progress made in some important areas of technology up-gradation, design and development during the year 2015-16 are as follows:-

- In order to improve the efficiency of company pumps model SMK 4x6x15 CFD(Computational Food Fluid Dynamic) analysis report has been submitted by M/s Aetos Design & Development Pvt. Ltd. Company have also explored the casting vendors for manufacturing of proto type impeller as per revised design proposed by CFD Consultant.
- Stuffing box for pumps model DVMX 6x8x11E-5STG have been modified to accommodate seal as per API 610, 6^{th} edition and API 610, 8^{th} edition both.

5.5.13 The Braithwaite Burn & Jessop Construction Company Ltd. (BBJ)

In an increasingly competitive environment, BBJ has recognized the importance of R&D to maintain its leadership position. To further its competitive edge with the limited resources and concerted efforts by the employees, BBJ has developed new launching schemes for steel bridges. BBJ has developed new launching schemes for steel bridges. BBJ developed an effective erection scheme to replace old steel bridges with newly fabricated girders in a very short time on running lines. Recently, BBJ developed forward launching plans for DMRC project, Ganga Bridge at Munger and also for other projects. BBJ has developed appropriate cutting plans for fabrication to reduce wastage.

5.5.14 Cement Corporation of India Ltd. (CCI)

Technology up gradation measures have been taken up in all the three units. Capacity expansion of Bokajan unit by installing a separate line of 1200 tpd clinkerisation stream which will encompass all latest technology is in progress. Other related activities such as laying of broad guage line, construction of road, strengthening of ropeway, installation of pollution control equipment etc. are also being taken up. Various technology up gradation schemes of Tandur unit have been taken up for implementation as a part of the Sanctioned

Scheme. Utilization of pet coke as an alternative fuel has been started in Rajban. Close circuiting of cement mill along with fly ash handling system is being given priority at Tandur. R&D activities are being taken up within the available limited resources, aimed at improving the plant process/operation.

5.5.15 Engineering Projects (India) Ltd., (EPI)

EPI is making efforts to constantly upgrade technology and Construction techniques and to look in to the aspects of appropriate designing and value engineering. New as well as updated design software are used for in-house engineering activities.

The range of latest technologies from leading companies of global repute available with the organization for utilization in industrial projects include Acid Concentration Plants, Chemical Process Plants, Specialized Ore beneficiation facilities for extraction of rare earths etc. Employees are sponsored for training to various programmes and seminars for development of their technical knowhow.

EPI used excavated material for construction of roads/fence foundation etc. during project execution resulting in saving of construction cost.

EPI is intending to use new methods in the newly awarded " Namami Gange Project" like sewage treatment with zero discharge including online treatment with recycling, eco-sanitization for Desalination, Effective Microorganism technology (Bacterial Process) for reducing environmental pollution.

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

The Company is making continuous efforts to update technology and upgrade quality standards along with R&D efforts. The Company has successfully diversified in various fields such as projects in Educational Institutions, Healthcare Units, Rim Seal Fire Protection System with Hollow Metallic Tube Type Detection& Foam based fire extinguishing system etc. and the Company has successfully managed to absorb technology and knowhow for Rim Seal Fire Protection System.

5.5.17 Scooters India Limited (SIL)

Major achievements during the year 2015-2016 are as under

- Development of in-house factory built body of VIKRAM 450-D, 750D, 1000-CG and 1500-CG load Carrier and Passenger Carrier Variant.
- Development of non metallic (PP) internal mud guard (wheel arch) with the help of M/S CIPET (Central Institute of Plastics Engineering & Technology), Lucknow.
- Development of Sheet Metal to non metal i.e. Plastics, FRP etc., use of alternate material etc., parts, Value Engineering on existing products etc., comprising the improvement, reliability, cost and weight reduction on existing products.

Future Plan of Action on R&D

- Up gradation of present products to meet forthcoming Regularity Norms is under future plan action.
- Products upgrades with self adjusting brake system, improved handle bar & steering system and standardization of electric items, rubber and plastic parts is also under future plan action.
- Development and introduction of the 3-Wheeler concept vehicle Dry single Plate Clutch System on small platform.

Chapter 6

Welfare of SC/ST/OBCS/PWDs and Minorities

6.1 It has been the constant endeavour of this Department to oversee the 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/ promotion for SCs/STs/OBCs, persons with disabilities and minority communities are followed by PSEs under the Department.

6.2 An SC/ST Cell is functioning within the Department, under the supervision of a Liaison Officer of the rank of Director/ Deputy Secretary for proper monitoring of the implementation of the reservation policy of Government of India.

6.3 Government had constituted a Committee for making in-depth analysis of the reasons for non-filling up of reserved vacancies for SC, STs, and OBCs etc. in Government sector. As a part of recommendations of the said Committee, Department has Constituted a Committee under the chairmanship of Joint Secretary to monitor the progress in reducing the backlog of SCs, STs, OBCs, etc. in Department as well as in CPSEs under its administrative control.

6.4 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. Facilities like residential accommodation etc. are extended to employees on equal terms. Every year, Qaumi 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.

6.5 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. CPSEs 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 providing facilities like user-friendly toilets, lifts etc., exemption from payment of professional tax, to and fro transportation facilities, provision of medical equipments and general medical assistance. The visually impaired 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 impaired persons. These facilities are being provided to enable them to discharge their duties and facilitate their integration into the mainstream workforce. BHEL is also providing financial assistance for running special care schools and vocational training centres at Trichy, Bhopal, Hyderabad and Haridwar.

6.6 Department of Heavy Industry issues Essentiality Certificate to persons with Disability for availing eligible concession on excise duty on purchase of modified cars. As a step towards simplification of Government procedure, the affidavit to be submitted by the applicant in this regard has been replaced with the self-attested certificate. The detailed eligibility conditions are displayed on website of the Department. During the year 2015-16, total numbers of applications received were 99 and certificates were issued to 98 persons and during the period from 1.4.2016 to 31.12.2016, total number of applications received were 118 and certificates were issued to 78 persons.

6.7 The annual data about representation of SCs, STs, OBCs and Persons with Disabilities in the Department of Heavy Industry as on 1st January of each year is furnished on-line to DOPT, through the portal launched by department of Personnel & Training (www.rrcps.nic.in) for Representation of Reserved category in Posts and services.

6.8 In compliance of Interim Order dated 28.04.2015 of Hon'ble Supreme Court in Contempt Petition No. 499/2014 in Civil Appeal No. 9096/2013 in the matter of National Federation of Blind, Department of Personnel & Training vide their letter No. 36012/39/2014-Estt (Res) dated 22nd May, 2015 had asked all the Ministries/Departments to launch a Special Recruitment Drive to fill up the vacancies for Persons with Disabilities. Accordingly, CPSEs concerned under the Department has launched Special Recruitment Drive to fill up the vacancies for Persons with Disabilities, as a result of which most of the vacancies for PWDs have been filled up.

Chapter 7

Empowerment / Welfare of Women

7.1 Department of Heavy Industry and the CPSEs under its administrative control constantly endeavour 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 equity and justice to women employees, a Complaints Committee has been constituted in the 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, training etc. This helps in ensuring their fuller integration into the mainstream work force.

7.3 The instructions issued by the Ministry of Women & Child Development on Gender Budgeting with a view to identify sectors/ services where initiatives can be taken by the Department for the implementation of schemes/programmes for promoting gender equality, are being followed in Department of Heavy Industry and CPSEs under the administrative control of the Department.

Chapter 8

Vigilance

8.1 The Department has a Chief Vigilance Officer of the rank of Joint Secretary to look into the vigilance matters of employees of the Department as well as Board level officers of the Central Public Sector Enterprises and Organizations under its administrative control. He is assisted by a Director and an Under Secretary along with a Vigilance Section.

8.2 **The main areas of work of the Vigilance Section are:**

- ❖ Dealing with complaints against Board level appointees of PSEs under the administrative control of the Department of Heavy Industry as well as the officers of the Department; periodical review of vigilance matter.
- ❖ Issue of vigilance clearance in respect of Board level appointees in PSEs and all other appointments based on PESB recommendation, requiring ACC approval as well as officers/officials of DHI.
- ❖ Interfacing with CVC, CBI and CVOs of PSEs under DHI to streamline flow of information in respect of vigilance matters;
- ❖ Tendering advice on issues of procedural irregularity;
- ❖ Vetting charge sheet in respect of vigilance cases against Board level appointees;
- ❖ Monitoring & completion of Annual Confidential Reports or Performance Appraisal Reports of officers and staff of the Department as well as Board level appointees of its PSEs and maintenance of the same.
- ❖ Monitoring, submission of Annual Property Returns by officers and staff of the. Department of Heavy Industry as well as Board level officers of its PSEs.
- ❖ Filing of APARs under SPARROW in respect of IAS officers, DS and above level of CSS, Sr. PPS/PSO of CSSS and IPS Officers.

8.3 Vigilance Section lays considerable emphasis on preventive vigilance and is promoting the use of IT to bring about greater transparency. Punitive measures are also taken in appropriate cases and followed up wherever required.

8.4 Vigilance Awareness Week was observed by DHI from 31.10.2016 to 05.11.2016.

8.5 Vigilance cases are usually of complex nature demanding varied and detailed information, comments & analysis into the allegations with due assistance from the CVOs of the CPSEs. Concerted efforts were made to identify the long pending cases, the oldest cases being given special attention to bring the investigation to the logical conclusion. There were 35 vigilance cases/ complaints in the beginning of the year 2016. 54 new cases/complaints were received during the year. Investigation was completed in 48 cases, and they were disposed off after the approval of competent authority and consultation with Central Vigilance Commission, wherever required.

8.6 Vigilance clearance was accorded from CVC as well as DHI in 49 cases for Board level & below Board level officers of PSEs in connection with recruitment/ confirmation/ extension/ retirement/ resignation and 73 was accorded for DHI Officers/officials.

Chapter

9 Progressive Use of Hindi

9.1 In keeping with the motto "Shramev Jayate'', Hindi Section of the Department of Heavy Industry is making all efforts to make the Official Language Hindi a medium to transact government business in accordance with the goals set by the Department of Official Language. To review the progress made in the use of Hindi, the Official Language Implementation Committee held its periodical meetings under the chairmanship of Joint Secretary, in-charge of Hindi Section in the Department and suggested ways to remove the impediments in the use of the Official Language in official work.

9.2 During the year 2016-17, the inspecting team of the Department carried out inspections of different Units/Offices of Central Public Sector Enterprises under the administrative control of the Department to monitor the progress made in the use of Hindi and also directed the officers of these Units/Offices to achieve the targets prescribed in the Annual Programme issued by the Department of Official Language.

9.3 All the Cabinet Notes, Notifications, Resolutions, Notes and Circulars, Parliament Questions & papers laid on the Table of both Houses of the Parliament, Annual Report, Budget Performance, CAG reports, Delay Statements, General Orders and Citizen Charter were issued both in Hindi and in English.

9.4 Workshops were also organised for officers/ employees to enable them to work on computer in Hindi. Apart from this, The First Meeting of Reconstituted Hindi Advisory Committee was held on 10th January, 2016 at Goa under the chairmanship of Hon'able Minister, Ministry of Heavy Industries & Public Enterprises Shri Anant Geete. This Meeting was held in energetic manner. The working of DHI in OFFICIAL LANGUAGE has been admired in the Meeting. Second Meeting of Hindi Advisory Committee was held in Hyderabad on date 29.12.2016.

9.5 In order to promote the use of Hindi and to increase correspondence in Hindi, "Hindi Fortnight" was organized from 01st September, 2016 to 15th September, 2016 in which Officers/Staff of the Department participated enthusiastically.

Shri Anant G. Geete, Hon'ble Minister of Heavy Industries and Public Enterprises gave away certificate to the winners and encouraged officers/staff by his motivational words so that they can work originally in Hindi Language.

6. Public Sector Undertakings, 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 PSUs to propagate the use of Hindi. **"HINDI FORTNIGHT/HINDI WEEK/HINDI MONTH"** were celebrated in these PSUs with great zeal.

Chapter 10

Implementation of Sevottam

10.1 The Department of Heavy Industry is committed to the goal of effective and responsive administration and service on delivery excellence. The SEVOTTAM framework of Government of India has been implemented in the Department. Following steps have been taken in this direction.

10.1.1 **Citizens'/Clients' Charter (CCC)** of the Department of Heavy Industry has been prepared and displayed on the website of the Department for the year 2015-16. Citizens'/Clients' Charter (CCC)for the year 2016-17 is under review. The Department offers services to Citizens, Central Public Sector Enterprises under the Department, Industry Associations, Statutory bodies, Administrative authorities and the Ministries/ Departments of the Government of India, State Governments and Administrators of the Union Territories as per the service standards indicated in the Citizens'/Clients' Charter include in the CCC have been fixed. The CCC was last reviewed in March, 2015.

10.1.2 **Grievance Redress Management**: The Department has appointed Sh. B. J. Mahanta, Joint Secretary as the Public Grievance Officer for monitoring redressal of grievances. The Department receives online grievances through CPGRAM Portal. The grievance redressal is monitored periodically by the Joint Secretary. In addition off-line grievances are also received. During the period from 01.04.2016 to 30.11.2016, 1015 grievances were received and 1244 grievances were disposed of. As on date, the rate of disposal of grievances pertaining to this Department is 97%.

10.1.3 **Implementation of ISO:9001:2008 certification:**

In the first phase, the three units viz. Auto Engineering Industry, PE XI and Technical Services Wing (B) of the Department of Heavy Industry have been awarded ISO:9001:2008. The Certifying Body M/s Det Norke Veritas issued ISO certificate after final audit of the above three units. The Department has initiated the process of ISO:9001:2008 certification for the remaining sections of the Department.

10.1.4 **Digitization**

In furtherance of Government of India's endeavour to digitize all official records in order to bring transparency, accuracy and timely responses and cost savings from less creation, storage, retrieval and handling of paper records. Major portion of this Department's record i.e. around 2600 physical files have been digitized including

105 files of O&M Sec. &PG Cell so far. This process is underway and whole record of the Department would be digitized in the near future.

10.2 IT initiatives taken in the Department

IT initiatives taken in the Department during 2016 (till 31.12.2016)

- e-Office has been implemented for official work in DHI. The Progress is as follows :
  - EMD, E-leave, FMS,PIMS have been upgraded
  - eMail Diarisation has been enabled
  - files have been created and old files digitized and migrated
  - E-sign is also incorporated and enabled
  - Workshops organized to familiarize usage of DSC by the officers in the Department
  - Training provided to users for CBP on e-Office,PIMS conducted by-e-Office Project Management Unit, NIC http://support.eoffice.gov.in provided to user for reporting their issues and bugs.
  - 15 KMS users have been created with privilege to publish their documents and material in e-office.
  - Various workflow modules have been enabled to users from time to time.
- Department's website STQC certificate has been obtained after launching of redesigned website. Hindi version of website also updated regularly and is well taken care of by Hindi Section
  - Section wise accounts are created for CMS update
  - Training provided to user for CMS update and approval
  - eMail alert implemented regarding each update.
  - gov.in domain obtained for website and synchronized with dhi.nic.in
  - all information uploaded at website regularly
- e-platform for Demand Incentive Delivery Mechanism (DIDM) launched in September,2015 has been upgraded with report modules, on line queries and dash board , GIS based reports.
- SPARROW (Smart Performance Appraisal Report Recording Online Window) has been implemented in the Department.
  - All form of SPARROW viz:

    1) IAS Sparrow, 2) CSS Sparrow, 3) IPS Sparrow implemented in the department.
  - Responsibility of Par manager, Nodal officer, custodian are given to officer
  - Workshop regarding sparrow use conducted in department.
  - e-sign is also integrated
- Desk top Video Conferencing facility has been provided to all officers of the level of Director and above in DHI as well as CMDs of CPSEs

- Hands on training provided to the officers of the level above DS
- Many group VCs have been organsied on heterogeneous platform like Video Conference studio, web, laptop, mobile & desktop

- An official twitter account of DHI (@ heindustry) has been created and operated regularly.
  - Twitter account of officer has been created
  - Twitter manual created and shared with user.
  - Hands on training provided to user
- Biometric devices have been installed at all the entry points and also provided to all officers of the level of DS and above
- COM DDO have been upgraded along with regular patch updations
- Payslip is integrated with eoffice
- PFMS(Public Financial Management System) is being integrated in DHI. Efforts to achieve 100% cashless transaction has been taken up
- Visitor Monitoring System(VMS) has been implemented in the Department
  - List of all officers provided in VMS
  - Entry pass and Record of visitor is managed at reception through VMS
- **PRAGATI Portal**
  - Department use all feature of PRAGATI portal, like updation of contain regarding agenda, getting agenda point etc.
- **DBT MIS**

  In order to monitor the list of beneficiaries through various schemes, a DBT –MIS web enabled application has been developed and implemented in intranet platform. This will help to monitor all the beneficiaries of various schemes. In addition to that integration with DBT Portal of DBT Mission is also maintained by IT Cell.
- Few existing intranet applications like PMO references, VIP references, court cases etc. are being upgraded with respect to latest technology with additional new reports.

INTERNATIONAL COOPERATION

In furtherance of the objective of bringing the state of the art technologies in industry, DHI collaborated with various foreign countries and participated in following International meetings/ conferences /seminars:

- The Apex Committee for "Enhancing the Competitiveness of "Capital Goods sector" in its 3rd meeting held on 28th January 2016 considered and approved collaboration by Heavy Engineering Corporation (HEC), Ranchi, with M/s CNIITMASH — a Russian. Government Industrial Technology Research Institute for setting up a Centre of Excellence in Heavy Engineering Design to train 1350 engineers in three years in the latest technologies relating to electro slag re-melting, welding, gear box manufacturing and non-destructive testing. This project is critical for the development of the country.
- Director (Auto), HI visited Tokyo on

12.2.2016 to attend the 7th India-Japan Automobile Standards Internationalization Centre (JASIC) Forum.

- 9th Meeting of the Indo-German Joint Working Group on Automobiles was held on 5th February, 2016 in Gr. Noida, UP.

- DHI was included in the delegation of the Finance Minister travelling to Australia to promote investments into India. Joint Secretary (Heavy Engineering & Machine Tools) represented DHI and participated in the panel discussion on "Mining Equipment and Resources (Technology & Skills)", which was the part of the 'Make in India' Conference held in Sydney on 30th March, 2016.

- Secretary, HI led an industry delegation to Hannover Messe, 2016, which is the world's largest platform showcasing manufacturing technologies and innovations. The objective of participation this year was to take forward the benefits of India branding last year, register our presence and claim in the manufacturing sector at Hannover Messe, to network for technologies required by the country and at the same time explore avenues leading to technology transfers for our industries. The Department organised a workshop on the subject of Indo German Partnership for industry 4.0, which witnessed participation of Germany's largest associations, institutions and companies. MOUs with (i) Steinbeis, world's largest industrial technology development organisation and (ii) HMF India, Indian subsidiary of the Hannover Messe with whom Department is replicating successful organisation of Mini Hannover Messe in India named WIN India, were signed.

- MoU on co-operation in the field of manufacturing between the Department of Heavy Industry and Steinbeis GmbH Co. KG for Technology transfer, Germany was placed in the Cabinet Meeting on 22.06.2016 for information.

- Joint Secretary (Auto), DHI participated in the 169th Session of WP-29, a World Forum for Harmonization of Vehicle Regulation, at Geneva from 21st to 24th June, 2016.

- Joint Secretary (Auto), DHI visited Volvo Plant at Gothenburg, Sweden during 18th to 21st June, 2016 in connection with National Mission on Electric Mobility (NMEM), in general, and FAME India Scheme of the Government, in particular.

- INNOPROM, one of the largest Annual Industrial Exhibition Fair of Russia was held in Moscow from 9th to 13th July, 2016. India was the partner country in the event. India's participation at INNOPROM was led by Hon'ble Minister of State, Commerce & Industry Smt. Nirmala Sitaraman. The exhibition was attended by Senior Officer of DHI and also from some of important CPSEs of DHI like Heavy Engineering Corporation Ltd (HEC) and Andrew Yule & Company Ltd. (AYCL).

- Mr. Tomasz Lukaszuk, the Ambassador Extraordinary and Plenipotentiary of the Republic of Poland and the representative of JBM group, an Indian Automotive Company which has recently signed a Joint Venture Agreement with Solaris, an important bus manufacturer from Poland, met officers in my Department on 29th August 2016 to discuss the prospective cooperation between Polish and Indian automotive industry.

- The Joint Secretary in charge of Andrew Yule & Co., a CPSE under this Department visited Georgia at the request of Ministry of Agriculture, Georgia to assess the viability of reviving Georgian Tea.

- Industry and explore possible avenues of cooperation between Andrew Yule & Co Ltd and Government of Georgia in Tea Sector. The visit was also intended to review and assess the market of Yule Teas including Iced Teas, the current penetration and steps required to increase the same in that part of the world. The visit was also an opportunity to assess the export of bulk/value added Teas to some of the neighboring countries like, Azerbaijan, Ukraine/ Kazakhstan.

- Secretary, HI chaired a meeting of the Japanese Manufacturing Association on 01.09.2016 at New Delhi.

- Joint Secretary (Auto), DHI chaired a meeting held on 29.09.2016 at New Delhi with the delegation of the Government of Bangladesh (GoB) led by Ms. Yasmin Sultana, Joint Secretary, M/o Industry, GoB.

- Secretary, HI chaired a meeting of the Japanese Manufacturing Association on 01.09.2016 at New Delhi.

- Joint Secretary (Auto), DHI visited Germany on 23rd September, 2016 to attend the Joint Working Group of the German-Indian Automobile.

- The fourth meeting of Indo — Czech joint working group was held at Brno to coincide with MSV Brno Fair between October 3-6, 2016 wherein a review of the progress in bilateral ties was taken up and roadmap for future cooperation was finalised. The Indian delegation which was led by me and India's Ambassador to Czech Republic Mr. Krishnan Kumar was also present. with a view to enhancing greater economic engagement with the Central and Eastern Europe, the Indian delegation and Industry leaders shared with their Czech Republic counterparts a slew of measures being taken by India to encourage foreign investors, particularly in the areas of high technology, including Capital goods & Engineering, under the Government's flagship,'Make in India' programme.

- A German delegation led by the Federal Minister of Transport and Digital Infrastructure of the Federal Republic of Germany, Mr. Alexander Dobrindt called on the Hon'ble Minister of Heavy Industries & Public Enterprises on 14th October, 2016. The purpose of the visit was to strengthen collaboration within the Indo-German Automobile Working Group. Several issues such as news on ban on diesel vehicles, FAME India scheme, Capital Goods Policy, implementation of Euro —VI norms in Automobile Sector by 2020 and impact of GST recently passed by Parliament were discussed during the meeting.

- Meeting of US-India Business Council (USIBC) with the Secretary, Heavy Industry and other officers was held on 18th October, 2016 at New Delhi.

- Additional Secretary, DHI visited Geneva on 15-18 November, 2016 to attend the 170th Session of the WP-29 organized by the UNECE World Forum for Harmonious action of vehicle regulators.

- Secretary, HI met a delegation from Wisconsin Economic Development Corporation, USA on 15 November 2016 to discuss and deliberate on ways to promote exports and investment flows between Wisconsin State USA and India towards strengthening economic relations.

- A meeting of the BRICS Forum on State Owned Enterprises (SOE) Reforms and Governance was organized by the Department of Public Enterprises in consultation with Ministry of External Affairs from 18-19 November 2016 at Chennai. Joint Secretary of this Department was deputed to represent DHI in the meeting.

- Joint Secretary (HE&MT), Department of Heavy Industry attended the 3rd Meeting of the Indo-German High Technology Partnership Group led by Foreign Secretary in Berlin on 30th November 2016.

- A meeting between the delegation from Czech Republic headed by H.E.Lubomir Zaoralek, Minister of Foreign Affairs of the Czech Republic and Shri Babul Supriyo, Hon'ble Minister of State (HI&PE) was held on 19th December, 2016 to discuss in brief about area of possible economic cooperation between India and Czech Republic with special emphasis on Heavy Industries Sector.

Chapter

11

Right to Information

11.1 Various provisions of RTI Act and the instructions issued by the Government of India, Department of Personnel and Training and the Central Information Commission have been implemented in the Department of Heavy Industry. The Central Public Sector Enterprises under the administrative control of the Department, separate public authorities under RTI Act, have also been enjoined upon to implement the provisions of the RTI Act.

11.2 The web portal 'RTI on Line' launched by Department of Personnel & Training has been made operational in Department of Heavy Industry with effect from 18.7.2013. All the officers of the level of under Secretary or equivalent have been designated as CPIOs and all officers at the level of Director/Dy Secretary or equivalent have been designated as First Appellate Authority under the RTI Act. In addition, officer of the rank of Director/Deputy Secretary is designated as Transparency Officer to ensure suo motu disclosure of information on the website of the Department in terms of Section 4(1) (b) of RTI Act, 2005.

11.3 Based on the guidelines issued by the Department of Personnel & Training on the basis of recommendations of Task Force, for the implementation of suo motu disclosure of information in terms of Section 4(1) (b) of RTI Act, 2005, various steps have been taken in the Department for suo motu disclosure and updating the information on the website of the Department. An officer of the rank of Joint Secretary has been designated as Nodal Officer for ensuring compliance with these pro-active disclosure guidelines.

11.4 For the effective and quick disposal of RTI applications/appeals, Government had decided to integrate the CPSEs/Autonomous Bodies with the 'RTI on Line' portal of DoP&T. As a part of implementation of this decision of Government, the Nodal Officer of RTI matter of CPSEs under Department of Heavy Industry have been provided necessary training through DoP&T.

11.5 The RTI logo is being used on the printed stationery used in the Department. The Quarterly RTI returns were submitted to CIC online by the Department and the CPSEs under DHI.

11.6 During the year 2015-16, 743 application and 65 appeals under RTI were received in the Department and 707 applications and 60 appeals disposed off. For the period 1.4.2016 to 31.12.2016, 642 applications and 43 appeals has been received, and 605 application and 40 appeals were disposed off.

Annexure-I

Allocation of Business to the Department of Heavy Industry

INFORMATION IN RESPECT OF ADMINISTRATION SECTION

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 of the Department of Heavy Industry and Department of Public Enterprises. The Department of Heavy Industry is looking after the following items of work:

A) Work relating to following CPSEs:-

1 Heavy Engineering Corporation Limited

2 Engineering Projects (India) Limited

3 Bharat Heavy Electricals Limited

Subsidiaries:

(i) BHEL Electrical Machines Limited

Joint Venture

NTPC BHEL Power Projects (Private) Limited

4 HMT Limited

Subsidiaries:

(i) HMT (International) Limited

(ii) HMT (Machine Tools) Limited

5 Scooters India Limited

6 Andrew Yule and Company Limited

Subsidiaries:

(i) Hooghly Printing Company Limited

7 Cement Corporation of India Limited

8 Hindustan Cables Limited

9 Hindustan Paper Corporation Limited

Subsidiaries:

(i) Nagaland Pulp and Paper Company Limited

(ii) Hindustan Newsprint Limited

(iii) Jagdishpur Paper Mills Limited

10 Hindustan Photo Films Manufacturing Company Limited

11 Hindustan Salts Limited

Subsidiary:

(i) Sambhar Salts Limited

12 Instrumentation Limited

Subsidiary:

(i) Rajasthan Electronics and Instruments Limited

13 NEPA Limited

14 Braithwaite, Burn & Jessop Construction Limited

15 Bharat Pumps and Compressors Limited

16 Richardson and Cruddas (1972) Limited

17 Bridge and Roof Company (India) Limited

CPSEs/Subsidiaries of CPSEs liquidated/ under liquidation, wound up /winding up, closed/under closure, transferred to other Departments/Organizations:

1 Bharat Ophthalmic Glass Limited

2 Bharat Leather Corporation Limited

3 Tannery and Footwear Corporation of India Limited

4 Rehabilitation Industries Corporation

5 Bharat Yantra Nigam Limited

6 National Bicycle Corporation of India Limited

7 National Industrial Development Corporation Limited

8 Mining and Allied Machinery Corporation Limited

9 Cycle Corporation of India Limited

10 Jessop and Company Limited

11 Lagan Jute Machinery Company Limited

12 Reyrolle Burn Limited

13 Weighbird (India) Limited

14 Bharat Brakes and Valves Limited

15 Bharat Process and Mechanical Engineers Limited

16 Mandaya National Paper Mills Limited

17 Tyre Corporation of India Limited

18 Triveni Structurals Limited

19 HMT Limited

Subsidiary

(i) HMT(Bearing) Limited

(ii) HMT (Watches)Limited

(iii) HMT (Chinar Watches) Limited

20 Tungabhadra Steel Plants Limited

(B) Autonomous Bodies:

i) Fluid Control Research Institute

ii) The Automotive Research Association of India

iii) NATRIP Implementation Society (for the Implementations of National Automotive Testing and Research & Development Infrastructure Project)

iv) National Automotive Board (NAB).

C) **Other Subjects:**

1 Manufacture of Heavy Engineering Equipment for all industries

2 Heavy Electrical Engineering Industries

3 Machinery Industries including Machine Tools and Steel Plant Equipment

4 Auto Industries, including Tractors and Earth Moving Equipment

5 All Type of diesel engines including automobile engines

6 Development Council for Heavy Electrical and Allied Industries.

7 Development Council for Textile Machinery Industry

8 Development Council for Machine Tools Industry

9 Development Council for Automobile and Allied Industries

10 Electrical Construction Company (A Joint Venture between Govt. Of India and Govt. of Libya).

Annexure –I(A)

Status of CPSEs

S. No.	Name of CPSE	Recommendation of NITI Aayog	Present Status of Implementation / DHI's views
1.	Andrew Yule and Company Ltd. (AYCL)	N.A.	N.A.
2.	Bharat Heavy Electricals Ltd. (BHEL)	N.A.	N.A.
3.	Bharat Pumps and Compressors Ltd. (BPCL)	Recommended for Strategic Disinvestment.	Government on, 27.10.2016 accorded "In-principle" approval on DIPAM's proposal for strategic disinvestment of this company. Accordingly, Asset Valuer Committee has been constituted which met on 4th January, 2017 and 6th January, 2017.
4.	BHEL – Electrical Machines Ltd. (BHEL-EML)	Government of India's stake to be handed over to the State Government.	Hon'ble Chief Minister, Kerala has expressed unwillingness to accept BHEL's stake in BHEL –EML.
5.	Braithwait, Burn and Jessop Construction Ltd. (BBJ)	N.A.	N.A.
6.	Bridge and Roof Company Ltd. (B&R)	Recommended for Strategic Disinvestment.	Government on, 27.10.2016, accorded "In-principle" approval on DIPAM's proposal for strategic disinvestment of this company. Accordingly, Asset Valuer Committee has been constituted which met on 4th January, 2017 and 6th January, 2017.
7.	Cement Corporation of India Ltd. (CCI)	Units of CCI be disinvested where it is legally permissible to strategic buyer through two stage auction process.	Government on, 27.10.2016 accorded "In-principle" approval on DIPAM's proposal that units of CCI be disinvested where it is legally permissible to strategic buyer through two stage auction process. Accordingly, Asset Valuer Committee has been constituted which met on 4th January, 2017 and 6th January, 2017.

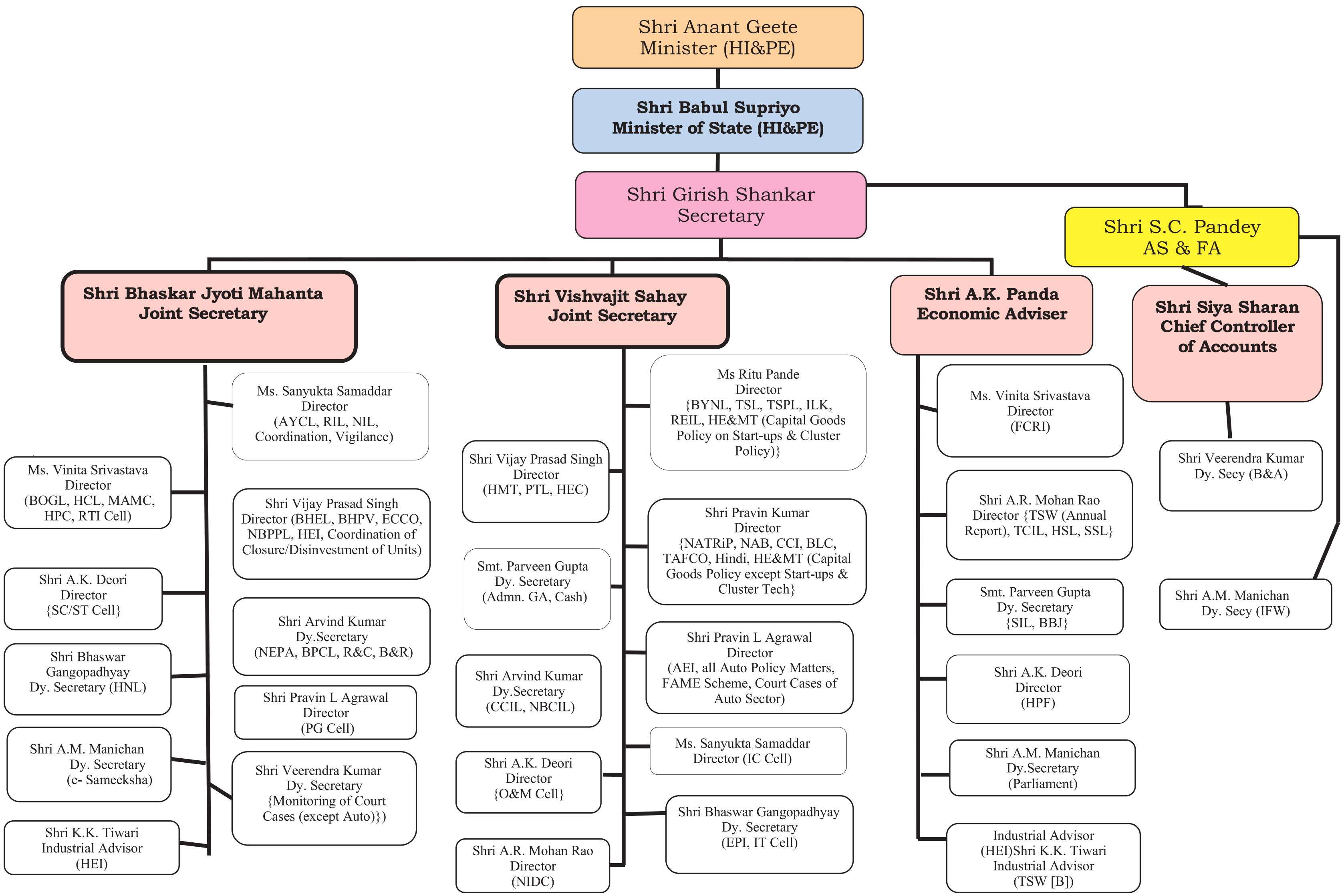
S. No.	Name of CPSE	Recommendation of NITI Aayog	Present Status of Implementation / DHI's views
8.	Engineering Projects (India) Ltd. (EPI)	Recommended for Strategic Disinvestment.	Government on, 27.10.2016 accorded "In-principle" approval on DIPAM's proposal that this company may be merged with similarly placed CPSEs. Necessary action for implementation of this decision is underway.
9.	H.M.T. International Ltd.	N.A.	N.A.
10.	H.M.T. Ltd.	Closure of Tractor Business.	Government, on 27th October, 2016 approved closure of Tractor Unit of HMT Ltd. at Pinjore by offering of attractive VRS / VSS package to their employees. Funds to be released soon.
11.	H.M.T. Machine Tools Ltd.	Roadmap for revival to be prepared.	A technology plan is being formulated with focus on achieving technology leadership capabilities in the core business of Machine Tools.
12.	Heavy Engineering Corporation Ltd. (HEC)	Transfer the ownership of HEC to the Government of Jharkhand.	Draft Cabinet Note for transferring of HEC to the State Govt. of Jharkhand is under inter-ministerial consultation. Saraswat Committee Report to be received shortly. Further action will follow accordingly.
13.	Hindustan Cables Ltd. (HCL)	Closure	Closure approved by Government on 28.09.2016. Subsequently, BIFR in its hearing held on 29.11.2016 permitted the company to transfer their Naini Unit to M/o Defence / HAL and to ensure to take care of the workers who have not taken VRS and agreed to join HAL.
14.	Hindustan Newsprint Ltd. (HNL)	Recommended for Strategic Disinvestment.	Government on, 27.10.2016 accorded "In-principle" approval on DIPAM's proposal Disinvestment of 100% shareholding of the concerned CPSE in Hindustan Newsprints Ltd. to strategic buyer through two stage auction process. Accordingly, the matter regarding constitution of IMG, Committee for Asset Valuation and Evaluation Committee relating to strategic disinvestment for HNL is under consideration in this Department.
15.	Hindustan Paper Corporation Ltd. (HPC)	Continuation of status quo for the time being.	Noted.

S. No.	Name of CPSE	Recommendation of NITI Aayog	Present Status of Implementation / DHI's views
16.	Hindustan Photo Films Manufacturing Company Ltd. (HPF)	Since the liabilities of the CPSE were much greater than its assets, liquidation was the only way out.	Addl. Solicitor General and CMD, HPF has been requested to pursue the Matter with Hon'ble High Court of Madras for early appointment of Official Liquidator.
17.	Hindustan Salts Ltd. (HSL)	N.A.	N.A.
18.	HMT Bearing Ltd.	Closure	In pursuance of the CCEA decision on 6.1.2016, these three subsidiary companies of HMT Ltd. have since been operationally closed down. All employees of the these three companies have been relived through VRS/VSS except 146 employees in Ranibagh Unit of HMT Watches Ltd. Closure of Ranibagh unit was approved by Ministry of Labour & Employment but employees have moved to High Court and obtained stay on termination of employees and closure of the company. Review application is being filed. The process for disposal of movable and immovable assets of these companies is in progress.
19.	HMT Chinar Watches Ltd.		
20.	HMT Watches Ltd.		
21.	Hooghly Printing Co. Ltd. (HOOGHLY)	N.A.	N.A.
22.	Instrumentation Ltd. (ILK)	Closure of Rajasthan Unit, and transfer of Palakkad Unit to the Government of Kerala.	The Government, on 30.11.2016, has approved closure of Kota Unit of Instrumentation Ltd. and transfer of Palakkad Unit of Instrumentation Ltd. to Government of Kerala. In this connection, the Government has approved attractive VRS/VSS package at 2007 notional pay scales to employees of Kota Unit of Instrumentation Ltd. including the payment of pending salary, statutory dues etc., which amounts to approximately Rs.438 crore. Accordingly, VRS/VSS for Kota Unit's employees has been opened.

S. No.	Name of CPSE	Recommendation of NITI Aayog	Present Status of Implementation / DHI's views
23.	N.E.P.A. Ltd. (NEPA)	Continued revival be permitted, which may be reviewed for strategic disinvestment at an appropriate stage.	The revival plan approved by CCEA is under implementation as Revival and Mill Development Plan of Nepa Limited is expected to be completed by March 2017.
24.	Nagaland Pulp and Paper Company Ltd. (NPPC)	Continued revival be permitted, which may be reviewed for strategic disinvestment at an appropriate stage.	The revival plan of NPPC approved by CCEA on 4.6.2013 is under implementation.
25.	Rajasthan Electronics and Instruments Ltd. (REIL)	N.A.	N.A.
26.	Richardson and Cruddas Ltd. (R &C)	Different avenues for land use need to be explored and the company should be brought out of BIFR.	Government, on 21st September, 2016, has approved the proposal for enabling Richardson & Cruddas Co. Ltd. to come out of the purview of Board for Industrial and Financial Reconstruction (BIFR). For this purpose, Government approved the conversion into equity of the Government of India loan of Rs 101.78 crores given to the Company, alongwith the interest amounting to Rs 424.81 Crore accrued on this loan. The Government further approved in-principle, the strategic disinvestment of Nagpur and Chennai units of this Company and shifting of operations from Mumbai land to other locations of company. However, the Company's land at Mumbai will be converted from lease hold to "Occupation Class II" so as to enable the company to identify the best use of this piece of land for optimal utilization as per Government guidelines. First meeting of the IMG constituted by DHI was held in Mumbai on 2.12.2016. Meanwhile, Court has advised the Collector and State Government for resolving the dispute as both are Government parties.

S. No.	Name of CPSE	Recommendation of NITI Aayog	Present Status of Implementation / DHI's views
27.	Sambhar Salts Ltd. (SSL)	This company may be handed over to the Government of Rajasthan.	DHI submitted the operational details of the Company to NITI Aayog for advising further course of action in the matter. Response from NITI Aayog is awaited.
28.	Scooters India Ltd. (SIL)	Recommended for Strategic Disinvestment.	Government on, 27.10.2016 accorded "In-principle" approval on DIPAM's proposal for strategic disinvestment of this company. Cabinet Secretariat has been approached for further directions.
29.	Triveni Structurals Ltd. (TSL)	Closure.	The company is under liquidation since 2013. High Court has appointed Official Liquidator who has sealed the premises of TCIL. High Court has appointed Official Liquidator who has sealed the premises of TSL.
30.	Tungabhadra Steel Products Ltd. (TSPL)	Closure	Closure approved. All its employees have been relieved through VRS. Draft CCEA Note to appoint Land Management Agency to dispose this company's assets is under consideration in DHI.
31.	Tyre Corporation of India Ltd. (TCIL)	Closure	The company is under liquidation since 2013. High Court has appointed Official Liquidator who has sealed the premises of TCIL.

ORGANOGRAM OF DEPARTMENT OF HEAVY INDUSTRY (AS ON 01.01.2017)



ANNEXURE-III

GENERAL INFORMATION ABOUT CPSEs UNDER DHI

Sl. No.	Name of PSE and location of Registered Office	Year of setting up of CPSE	Gross Block as on 31.3.2016 (in crore)
1	Andrew Yule & Co.Ltd., (AY&CL), Kolkata	1919	269.39
2	Hooghly Printing Co. Ltd., Kolkata	1979	6.39
3	Bharat Heavy Electricals Ltd., (BHEL), New Delhi	1964	13613.00
4	BHEL-EML	2011	10.92
5	Braithwaite, Burn &Jessop Construction Co.Ltd., (BBJ), Kolkata	1987	19.16
6	Bharat Pumps & Compressors Ltd., (BPCL) Allahabad.	1970	103.79
7	Richardson & Cruddas (1972) Ltd., (R&C) Mumbai	1973	25.35
8	Bridge and Roof Co.(India) Ltd., (B&R) Kolkata.	1972	259.43
9	Hindustan Cables Ltd., (HCL) Kolkata.	1952	474.25
10	Heavy Engineering Corpn.Ltd., (HEC), Ranchi.	1958	386.31
11	HMT Ltd.,(Holdg Co.), Bangalore.	1953	138.81
12	HMT (Machine Tools) Ltd., Bangalore.	2000	341.40
13	HMT(International) Ltd. ,Bangalore.	1974	8.34
14	Instrumentation Ltd, (IL), Kota	1964	87.74
15	Rajasthan Electronics & Instruments Ltd., (REIL) Jaipur	1981	34.62
16	Scooters India Ltd., (SIL), Lucknow.	1972	60.27
17	Cement Corpn.of India Ltd. (CCI), New Delhi.	1965	722.69
18	Hindustan Paper Corporation Ltd. (HPC), Kolkata.	1970	952.46
19	Hindustan Newsprint Ltd., (HNL), Vellore, Kottayyam.	1983	506.38
20	Hindustan Photo Films Mfg. Co. Ltd. (HPF), Ooty.	1960	715.00
21	Hindustan Salts Ltd., (HSL), Jaipur.	1958	13.76
22	Sambhar Salts Ltd., (SSL)Jaipur.	1964	33.81
23	Nepa Ltd ., (NEPA), Nepa Nagar.	1947	103.91
24	Engineering Projects (India) Ltd., (EPI), New Delhi.	1970	24.27
25	Nagaland Pulp & Paper Company Limited (NPPC), Dist. Mokokchyng,Nagaland	1971	64.89
	TOTAL:		**18976.34**

ANNEXURE-IV

Employment Position including SC, ST & OBC as on 31.3.2016 in CPSEs under DHI.

Sl. No.	Name of CPSE	TOTAL NO. OF EMPLOYEES				Number of Employees			
		Executives	Supervisors	Workmen/ Others	Total	SC	ST	OBC	PWDs& their %
1	2	3	4	5	6	7	8	9	10
1	AYCL	230	90	14538	14858	2536	4375	7614	71
2	Hooghly Ptg	10	3	34	47	2	0	0	0
3	BHEL	12166	8041	21991	42198	8487	2731	12511	929
4	BBJ	59	7	51	117	7	0	3	0
5	BHEL-EML	20	4	154	178	12	6	120	2
6	BPCL	116	18	389	523	81	3	169	1
7	R&C	5	4	5	14	4	0	3	0
8	B&R	737	388	238	1363	172	13	70	24
9	HCL	166	286	881	1333	234	39	134	23
10	HEC	761	128	660	1549	312	330	204	18
11	HMT (Hldg Co.)	164	78	976	1218	252	31	89	14
12	HMT (MT)	399	197	1306	1902	340	98	537	29
13	HMT (International)	23	7	2	32	3	3	0	0
14	IL	193	408	248	849	151	10	183	11
15	REIL	75	80	96	251	49	10	58	5
16	SIL	98	28	272	398	100	1	116	1
17	CCI	176	212	359	747	114	77	97	3
18	HPC	313	106	1285	1704	248	158	170	12
19	HNL	115	43	407	565	42	1	166	10
20	HPF	3	45	119	167	3	40	118	6
21	HSL	16	24	37	77	12	3	11	2
22	SSL	15	19	73	107	20	7	41	2
23	NEPA	141	32	638	811	50	14	60	3
24	EPIL	335	45	20	400	71	10	60	6
25	NPPC	9	4	151	164	3	123	9	0
	TOTAL	**16345**	**10297**	**44930**	**71572**	**13305**	**8083**	**22543**	**1172**

Annexure-V

PRODUCTION PERFORMANCE OF CPSEs UNDER DHI

(₹ in crores)

Sl. No.	Name of CPSE	2013-14 (Actual)	2014-15 (Actual)	2015-16 (Actual)	2016-17 (Anticipated)	2017-18 (Tentative)
1	2	3	4	5	6	7
1	AYCL	326.06	358.55	357.51	418.00	460.00
2	Hooghly Printing	15.91	16.19	16.92	18.00	20.00
3	BHEL	40338.00	30947.00	26587.00	30000.00	31500.00
4	BHEL-EML	37.02	21.88	40.96	59.80	88.00
5	BBJ	260.66	196.54	166.61	300.00	250.00
6	BPCL	150.12	77.69	69.67	112.50	-
7	R&C	73.31	71.19	20.21	20.50	25.00
8	B&R	1378.77	1428.59	1707.01	1600.00	1700.00
9	HCL	0.00	0.00	0.00	0.00	0.00
10	HEC	411.67	391.50	405.10	592.89	825.65
11	HMT(Holding Co.)	74.11	53.66	37.18	18.00	8.00
12	HMT(MT)	155.56	181.50	201.44	257.00	291.00
13	HMT(International)	25.08	33.40	33.91	47.00	50.00
14	IL	158.35	158.86	117.56	200.00	225.00
15	REIL	215.97	224.40	212.00	230.00	280.00
16	SIL	215.28	204.47	110.64	231.64	255.00
17	CCI	363.03	449.54	436.23	436.46	442.16
18	HPC	634.34	714.03	403.72	436.04	923.49
19	HNL	356.83	336.72	342.06	385.14	387.50
20	HPF	3.61	0.15	0.00	0.00	0.00
21	HSL	7.49	6.90	4.51	9.00	13.00
22	SSL	17.08	21.31	18.41	41.17	50.00
23	NEPA	124.54	84.34	57.78	13.75	306.00
24	EPI	855.16	1031.28	1295.46	1400.00	1500.00
25	NPPC	0.00	0.00	0.00	0.00	0.00
	Total:	**46197.95**	**37009.69**	**32641.89**	**36826.89**	**39599.80**

Annexure-VI

PROFIT(+) LOSS (-) (BEFORE TAX) OF CPSEs UNDER DHI.

(₹ in crores)

Sl. No.	Name of CPSE	2013-14 (Actual	2014-15 (Actual)	2015-16 (Actual)	2016-17 (Anticipated)	2017-18 (Tentative)
1	2	3	4	5	6	7
(A) PROFIT MAKING CPSEs						
1	AYCL	22.29	12.96	8.35	12.20	13.25
2	Hooghly Printing	0.15	0.10	0.29	0.11	1.75
3	HNL	-8.86	-7.81	1.42	1.78	1.52
4	B&R	56.03	16.96	5.03	16.00	17.00
5	BBJ	68.42	74.06	68.89	25.80	18.05
6	CCI	16.20	40.08	53.51	74.90	14.35
7	EPI	26.11	41.21	38.19	38.60	40.14
8	HMT(International)	0.50	1.66	0.87	2.00	2.00
9	SIL	13.60	11.09	5.48	5.41	6.00
10	REIL	19.88	20.96	17.46	15.00	9.00
Sub-total for (A) Profit making Companies		**214.32**	**211.27**	**199.49**	**191.80**	**123.06**
(B) LOSS MAKING CPSEs						
11	BHEL	5014.00	2140.00	-1477.00	41.00	55.00
12	BPCL	-15.68	-47.76	-60.00	-20.46	0.00
13	HEC	299.31	-241.69	-144.77	-81.43	-41.76
14	IL	-68.61	-141.54	-170.50	-34.92	-29.83
15	R&C	-3.82	-3.64	-10.07	-2.01	-2.00
16	HCL	-782.00	-933.00	-994.00	-700.00	0.00
17	HPC	-118.50	-331.29	-370.14	-242.02	-173.29

Sl. No.	Name of CPSE	2013-14 (Actual	2014-15 (Actual)	2015-16 (Actual)	2016-17 (Anticipated)	2017-18 (Tentative)
1	2	3	4	5	6	7
18	HMT(Hldg. Co.)	87.21	-96.57	-104.7		
19	HMT(Machine Tools)	-52.66	-134.94	-121.64	-73.09	-61.57
20	HPF	-1820.42	-2162.76	-2527.91	0.00	0.00
21	NEPA	308.85	-48.71	-70.12	11.00	-8.60
22	BHEL-EML	-1.06	-3.96	-2.98	0.85	2.84
23	NPPC	-14.73	-14.73	-15.38	-16.87	-17.38
24	HSL	0.11	-4.95	-1.13	0.15	0.25
25	SSL	0.44	-9.83	-8.90	0.27	0.50
Sub-total (B) Loss making Companies.		**2832.44**	**-2035.37**	**-6079.24**	**-1117.53**	**-275.84**
GRAND TOTAL(A&B)		**3046.76**	**-1824.10**	**-5879.75**	**-925.73**	**-152.78**

SALARY/WAGE BILL & SOCIAL OVERHEADS AS % OF TURNOVER OF CPSEs UNDER DHI

	Wages and salaries as % of Turnover						Social overheads as % of Turnover				
Sl. No.	Name of PSE	2013-14 (Actual)	2014-15 (Actual)	2015-16 (Actual)	2016-17 (Anticipated)	2017-18 (Tentative)	2013-14 (Actual)	2014-15 (Actual)	2015-16 (Actual)	2016-17 (Anticipated)	2017-18 (Tentative)
1	2	3	4	5	6	7	8	9	10	11	12
1	AYCL	29.92	28.76	33.18	31.91	30.44	7.67	7.12	7.72	6.85	6.54
2	Hoogly Ptg.	15.07	18.74	16.26	16.21	21.00	0.81	0.96	0.83	0.79	0.83
3	BHEL	14.71	17.61	20.84	20.33	22.22	1.99	2.56	2.76	2.5	2.45
4	BBJ	7.43	8.43	10.81	6.77	6.74	0.24	0.31	0.42	0.50	0.26
5	BHEL-EML	19.00	35.00	19.00	15.00	12.00	-	-	-	-	-
6	BPCL	47.20	63.70	84.90	42.00	-	1.60	2.50	1.90	1.11	-
7	R&C	1.43	1.11	1.18	1.36	1.72	-	-	-	-	-
8	B&R	7.34	7.68	8.99	10.63	10.59	1.51	1.50	1.41	1.69	1.65
9	HCL	N.A.	N.A	N.A		N.A	N.A.	N.A.	N.A	N.A	N.A
10	HEC	30.30	33.90	26.22	19.61	14.85	-0.12	-0.25	-1.10	-0.07	-0.03
11	HMT(Hldg)	105.00	152.00	200.00	299.00	80.00	10.00	13.00	16.00	40.00	17.00
12	HMT(MT)	73.00	91.00	70.00	54.00	47.00	11.00	12.00	11.00	9.00	8.00
13	HMT (Inerntional)	29.00	18.00	16.00	12.00	12.00	2.10	1.20	0.90	0.80	0.80
14	IL	47.33	48.46	62.68	33.25	26.67	2.03	2.00	2.40	1.75	1.56
15	REIL	9.68	9.48	11.19	11.47	10.35	0.65	0.66	0.68	0.7	0.72
16	SIL	13.74	18.26	20.46	6.92	8.00	1.54	2.06	2.17	0.65	0.71
17	CCI	13.48	11.20	11.60	11.78	13.58	5.12	4.94	4.47	4.53	5.22
18	HPC	20.26	17.98	33.95	29.52	14.14	0.96	0.96	1.86	1.90	0.92
19	HNL	15.31	14.41	13.89	11.94	11.35	1.74	1.66	2.05	1.29	1.23
20	HPF	1184.00	0.00	0.00			4.17	0.00	0.00	0.00	0.00
21	HSL	69.54	78.02	164.48	81.77	70.00	4.24	2.23	8.04	5.77	5.50
22	SSL	36.96	39.51	38.72	19.94	18.00	2.49	1.82	1.86	1.74	1.70
23	NEPA	39.23	37.82	45.00	195.00	12.50	2.67	3.50	2.80	16.00	1.00
24	EPIL	5.45	6.04	5.18	5.28	5.37	0.83	0.64	0.87	0.88	0.90
25	NPPC	9.04	8.32	7.95		8.95	0.00	0.00	0.00	0.00	0.00

ANNEXURE -VIII

ORDER BOOK POSITION OF CPSEs under DHI

(₹ in crores)

Sl. No.	CPSE	As on 1.10.2012	As on 1.10.2013	As on 1.10.2014	As on 1.10.2015	As on 1.10.2016
1	2	3	4	5	6	7
1	AYCL	75.00	90.63	90.66	37.45	115.46
2	Hooghy Ptg	2.23	2.38	11.31	8.89	11.07
3	BHEL	122300.00	102300.00	103700.00	112300.00	103300.00
4	BBJ	450.08	282.82	124.54	360.70	414.93
5	BHEL-EML	18.47	15.73	14.31	50.49	36.13
6	BPCL	163.40	195.19	116.49	154.35	137.02
7	R&C	92.12	35.44	72.07	15.92	19.17
8	B&R	783.22	1229.87	964.80	1255.79	834.10
9	HCL	0.00	0.00	0.00	0.00	0.00
10	HEC	1724.19	1386.10	1435.01	1460.21	1139.26
11	HMT(Hldg)	0	0	0.00	0.00	0.00
12	HMT(MT)	285.90	325.75	214.22	307.57	291.72
13	HMT(I)	9.62	8.84	7.95	44.33	42.01
14	IL	241.36	241.36	94.11	40.66	34.30
15	REIL	72.15	71.54	137.57	67.40	202.67
16	SIL*					
17	CCI	26.01	22.74	3.39	5.93	6.67
18	HPC	473.74	495.88	209.40	398.67	243.01
19	HNL	26872	23513	20300	21200	21200
20	HPF	6.00	6.00	0.00	0.00	0.00
21	HSL	8.68	3.29	5.79	5.46	3.45
22	SSL	7.23	3.09	7.33	8.23	8.84
23	NEPA	89.31	79.82	51.46	49.31	8.82
24	EPIL	4590.86	3383.3	6444.85	7099.61	9669.89
25	NPPC					
	TOTAL	**158291.57**	**133692.77**	**134005.26**	**144870.97**	**137718.52**

*Goods are produced for stock and sale

Annexure-IX

EXPORT PERFORMANCE OF CPSEs UNDER DHI

(₹ in crores)

Sl. No.	PSEs	2012-13 (Actual)			2013-14 (Actual)			2014-15 (Actual)			2015-16(Actual)			2016-17(Anticipated)		
		Physical	Deemed	Total	Physical	Deemed	Total	Physical	Deemed	Total	Physical	Deemed	Total	Physical	Deemed	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	AYCL	2.11		2.11	1.86		1.86	2.19		2.19	4.49		4.49	5.00		5.00
2	BHEL	1998.00	20680.00	22678.00	2422.00	16608.00	19030.00	1418.00	11539.00	12957.00	1265.00	10300.00	11565.00	1219.00	7397.00	8616.00
3	BPCL		19.94	19.94		7.10	7.10		12.03	12.03		9.76	9.76		0.00	0.00
4	B&R	13.46		13.46	11.94		11.94	3.70		3.70	0.00		0.00	0.00		0.00
5	HEC			0.00	10.63		10.63			0.00			0.00			0.00
6	HMT (MT)	5.90		5.90	7.25		7.25	7.75		7.75	0.53		0.53	9.00		9.00
7	HMT(I)	29.23		29.23	18.79		18.79	28.11		28.11	24.82		24.82	44.00		44.00
8	IL	0.76	23.32	24.08	0.98	12.25	13.23	0.05	9.94	9.59	0.39	11.50	11.89	0.03	12.50	12.53
9	REIL	0.04	0.00	0.04	2.80	0	2.80	1.54	0	1.54	0.23	0	0.23	0.50	0	0.50
10	SIL	0.39		0.39	0.38		0.38	0.049		0.05	0		0.00	0.3		0.30
11	HSL	0.38	1.21	1.59	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	BHEL-EML	1.13	0	1.13	0.82	0.00	0.82	0.77	0.00	0.77	0.49	0.00	0.49	1.37	0.00	1.37
13	EPIL	119.51	0.00	119.51	340.85	0.00	340.85	591.42		591.42	497.78		497.78	500.00		500.00
14	HNL	0.00	0.000	0.000	0.000	0.364	0.364	0.00	0.85	0.85	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**2170.91**	**20724.47**	**22895.38**	**2818.30**	**16627.71**	**19446.01**	**2053.58**	**11561.82**	**13615.00**	**1793.73**	**10321.26**	**12114.99**	**1779.20**	**7409.50**	**9188.70**

ANNEXURE - X

PAID UP CAPITAL, NETWORTH AND ACCUMULATED PROFIT(+)/LOSS(-) AS ON 31.3.2016 OF THE CPSEs UNDER DHI

(₹ in crores)

Sl. No.	Name of CPSE	Paid up capital		Networth	Accumulated Profit (+)/Loss (-)
		Government/ Holding CPSE	Others		
1	2	3	4	5	6
1	AYCL	58.70	8.02	94.79	16.22
2	HOOGHLY PTG	1.03	0.00	4.00	1.29
3	BHEL	308.69	180.83	33053.00	32563.00
4	BBJ	103.73	0.00	288.52	167.66
5	BHEL-EML	5.35	5.15	1.56	-8.93
6	BPCL	53.53	0.00	-25.25	-108.80
7	R&C	54.84	0.00	-405.81	-460.64
8	B&R	54.63	0.36	312.63	257.65
9	HCL	417.69	1.67	-8021.60	-8497.70
10	HEC	606.08	0.00	-255.26	-961.38
11	HMT(Holding Co.)	1240.95	0.00	392.46	-848.49
12	HMT(Machine Tools)	719.60	0.00	-514.11	-1256.42
13	HMT(International)	0.72	0.00	31.56	30.84
14	IL	146.05	0.00	-459.40	-600.39
15	REIL	6.00	6.25	101.37	89.12
16	SIL	80.03	5.35	98.70	13.31
17	CCI	811.41	0.00	-55.93	-849.23
18	HPC	817.30	0.00	-335.97	-1169.61
19	HNL	99.99	0.00	164.13	64.12
20	HPF	187.68	19.19	-18851.20	-19080.18
21	HSL	37.88	0.00	33.15	-16.78
22	SSL	1.00	0.00	-24.80	-33.77
23	NEPA	447.82	0.65	62.52	-565.62
24	EPIL	35.42	0.007	227.84	171.24
25	NPPC	65.99	0.63	-79.54	-146.01
	TOTAL:	**6365.11**	**232.11**	**5842.36**	**-1223.50**

Important Audit observations from Comptroller & Auditor General Audit Report for 2016-17

Chapter – IX & XII of the Report No.15 of 2016 (Volume I) is related to Department of Heavy Industry.

Bharat Heavy Electricals Limited

1. Avoidable payment of compensation

Designing transformers without ascertaining actual operational requirements of the client, coupled with failure to undertake corrective measures resulted in avoidable payment of ₹ 163.17 crore.

(Para No.9.1, Report No. 15 of 2016, Vol-I)

2. Avoidable expenditure on payment of sales tax

Failure to include enabling clause in the agreement for reimbursement of taxes for A Centre Fabrication (ACF) despatches resulted in the Company bearing an avoidable expenditure of ₹ 11.27 crore.

(Para No. 9.2, Report No. 15 of 2016, Vol-I)

3 Unfruitful Expenditure on procurement of rail wagon

Deficient planning and subsequent non-utilization of special rail wagon by BHEL resulted in unfruitful expenditure of ₹ 8.07 crore on procurement of the wagon.

(Para No. 9.3, Report No. 15 of 2016, Vol-I)

Abbreviations

AAIFR	Appellate Authority of Industrial & Financial Reconstruction
ARAI	Automotive Research Association of India
AYCL	Andrew Yule & Company
BBJ	Braithwaite, Burn & Jessop Construction Company Limited
BBUNL	Bharat Bhari Udyog Nigam Limited
BEML	BHEL Electrical Machines Ltd.
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
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
EFV	Environmentally Friendly Vehicle
EOT	Electrically Operated Trolley
EPC	Engineering Procurement and Construction
EPI	Engineering Projects (India) Limited
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
ICGCC	Integrated Coal Gasification Combined Cycle
ICEMA	Indian Construction Equipment Manufacturers Asscoiation

IMTMA	India Machine Tools Manufacturers Association
JPML	Jagdishpur Paper Mills Limited
JVC	Joint Venture Company
JESSOP	Jessop Company Limited
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
MT	Metric Tonne
MUL	Maruti Udyog Limited
MVA	Mega Volt Amperes
MW	Mega Watt
NBCIL	National Bicycle Corporation of India Limited
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
PMMAI	Plastic Moulding Machinery Association of India
PPMAI	Process Plant and Machinery Association of India
PTL	Praga Tools Limited
R&C	Richardson & Cruddas (1972) Limited
RIC	Rehabilitation Industries Corporation Limited
RTI	Right to Information Act
SIL	Scooters India Limited
SSL	Sambhar Salts Limited
TAFCO	Tannery & Footwear Corporation of India Limited
TAGMA	Tools and Gauge Manufacturers Association of India
TCIL	Tyre Corporation of India Limited
TMMA	Textile Machinery Manufacturers Association
TSL	Triveni Structural Limited
TSPL	Tungabhadra Steel Products Limited
VRDE	Vehicle Research Development Establishment
WIL	Weighbird (India) Limited

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Department of Public Enterprises

Vision

"Effective, Profitable and Globally Competitive
Central Public Sector Enterprises"

Mission

"To continuously improve management and performance of CPSEs
through Corporate Governance, Performance Evaluation, Human Resource Management,
Research & Development so as to enhance their global competitiveness"

Introduction Department of Public Enterprises (DPE)

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

2. The Department of Public Enterprises is the nodal department for all the Central Public Sector Enterprises (CPSEs) and formulates the policy pertaining to CPSEs. It lays down, in particular, policy guidelines on performance improvement and evaluation, autonomy and financial delegation and personnel management in CPSEs. It furthermore collects and maintains information in the form of a Public Enterprises Survey on several areas in respect of CPSEs.

3. In order to fulfill its role, the Department coordinates with other Ministries, CPSEs and concerned organisations. As per the Allocation of Business Rules of the Government, the following subjects have been allocated to the DPE:

- Residual work relating to erstwhile Bureau of Public Enterprises including Industrial Management Pool.
- Coordination of matters of general policy affecting all Public Sector Enterprises.
- Evaluation and monitoring the performance of Public Sector Enterprises, including the Memorandum of Understanding mechanism.
- Matters relating to Permanent Machinery of Arbitration for the Public Sector Enterprises.
- Counselling, training and rehabilitation of employees in Central Public Sector Undertakings under Voluntary Retirement Scheme.
- Review of capital projects and expenditure in Central Public Sector Enterprises.
- Measures aimed at improving performance of Central Public Sector Enterprises and other capacity building initiatives of Public Sector Enterprises.
- Rendering advice relating to revival,

restructuring or closure of Public Sector Enterprises including the mechanisms therefor.

- Matters relating to Standing Conference of Public Enterprises.
- Matters relating to International Center for Public Enterprises.
- Categorisation of Central Public Sector Enterprises including conferring 'Ratna' status.
- Survey of Public Enterprises.

4. Department of Public Enterprises is headed by Secretary to the Government of India. The department has a sanctioned strength of 123 officers/personnel. The organizational structure of DPE is at **Annexure-1.**

Chapter

1 Public Enterprises Survey

1.1 Public Enterprises Survey

The Department of Public Enterprises brings out the Public Enterprises Survey on the performance of Central Public Sector Enterprises (CPSEs), which is laid in the Parliament every year during Budget session. The Public Enterprises Survey 2015-16 (56th Survey) will be laid in both the Houses of Parliament during the Budget Session of Parliament in February, 2017. The compilation of information for Public Enterprises Survey, 2015-16 is presently underway.

1.2 Performance of CPSEs, during the year 2015-16, is summarized below:

1.2.1 There were 320 Central Public Sector Enterprises under the administrative control of various Ministries / Departments as on 31.3.2016. Out of these 320 CPSEs, 244 were in operation while 76 CPSEs have yet to commence business.

1.2.2 Out of 244 operating CPSEs as many as 165 CPSEs showed profit during 2015-16, 78 CPSEs incurred losses during the year. The 'net profit' of profit making CPSEs (165) was ₹1,44,523 crore in 2015-16. The 'net loss' of loss making enterprises (78) stood at ₹28,756 crore during the year. The overall net profit of the 244 operating CPSEs increased by 12.54% to 1,15,767 crore in 2015-16 from 1,02,866 crore in 2014-15. The contribution of CPSEs to central exchequer increased by 38.63% in 2015-16 as compared to previous year 2014-15.

1.2.3 The cumulative investment (paid up capital plus long terms loans), which was ₹ 29 crore in 5 enterprises as on 31.03.1951, has gone up to ₹11,71,844 crore in 320 CPSEs as on 31.03.2016. The increase in 'investment' in all the CPSEs was 6.96% in 2015-16 over 2014-15, similarly 'capital employed' went up by 5.43% during the same period.

1.2.4 A comparison of the performance of CPSEs during 2015-16 vis-a-vis the previous year i.e. 2014-15, is at **Annexure-2**.

1.3 Scheme in respect of Research Development and Consultancies (RDC)

1.3.1 DPE is implementing a Plan Scheme of Research Development and Consultancies (RDC) for the executives of Central Public Sector Enterprises (CPSEs) and State Level Public Enterprises (SLPEs). Under the Scheme Management Development Programmes on various topics for increasing the knowledge & skill of executives of CPSEs and SLPEs are organized at various Centers for Excellence such as IIMs, IITs, IIPA New Delhi etc. During the year

2016-17, 9 training programmes have been successfully conducted under which 296 executives from SLPEs and CPSEs participated. The detail of all the 9 training programmes are given below:

S.No.	Institute	Dates	Subject
1.	IIT Guwahati	25-29 July, 2016	Project Management
2.	IIM Lucknow	8-12 August, 2016	Setting up Professional Goal Oriented Targets & Performance Evaluation
3.	IIPA, Delhi	5-9 Sept, 2016	Leadership and other enablers for achieving Business Excellence
4.	IIT Guwahati	19-23 Sept, 2016	Production Planning, Inventory Control and supply Chain Management
5.	IIM Shillong	03-07 October, 2016	Corporate Governance
6.	IIM, Bangalore	3-5 October, 2016	Corporate Governance
7.	ICWAI Management Accounting Research Foundation, Hyderabad	17-21 October, 2016	Financial Management and Accountability
8.	ICAI	7-9 November, 2016	Finance for Non- Finance Executives
9.	IIM Kozhikode	21-23 November, 2016	Risk Management

1.3.2 Under the DPE's Plan Scheme of RDC, following two workshops have also been organized during 2016-17:

Sl. No.	Institute	Subject	Date/Place
1	Institute of Chartered Accountant of India (ICAI)	Recent Changes in Companies Act 2013	23.08.2016 (Bangalore)
2	Institute of Chartered Accountant of India (ICAI)	Recent Changes in Companies Act 2013	9.09.2016 (Hyderabad)

1.4 Laying of the C&AG Reports in the Parliament

1.4.1 DPE tables the Reports of the Comptroller and Auditor General of India in the Parliament and also follows up with the respective administrative Ministries/ Departments for submission of Action Taken Notes (ATN) on Audit Paras to Committee on Public Undertakings as well as C & AG. Report of the C & AG namely, No. 9 of 2016 Union Government (Commercial) General Purpose Financial Reports of Central Public Sector Enterprises (Compliance Audit) was laid in the Parliament on 30th May, 2016 and Report No. 15 (Volume I & II) of 2016 (Compliance Audit Observations) of Central Public Sector Enterprises was placed in the Parliament on 05th August, 2016 (Lok Sabha) and 08th August, 2016 (Rajya Sabha) respectively.

Chapter

2 Autonomy to CPSEs

2.1 The endeavour of the Government is to make Central Public Sector Enterprises (CPSEs) autonomous board managed companies. Under the 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 Maharatna, Navratna and Miniratna in the manner stated in the following paragraphs.

2.2 MAHARATNA SCHEME

2.2.1 The main objective of the Maharatna scheme which was introduced in 2010 is to empower mega CPSEs to expand their operations and emerge as global giants.

2.2.2 The salient features of the Maharatna scheme are at **Annexure-3**.

2.2.3 Presently there are seven Maharatna CPSEs, viz. (i) Coal India Limited, (ii) Bharat Heavy Electricals Limited, (iii) GAIL India Limited, (iv) Indian Oil Corporation Limited, (v) NTPC Limited, (vi) Oil & Natural Gas Corporation Limited and (vii) Steel Authority of India Limited.

2.2.4 The meetings of the Inter-Ministerial Committee were held during the year 2016 to review the performance of all 7 Maharatna CPSEs and 17 Navaratna CPSEs.

2.3 NAVRATNA CPSEs

2.3.1 The Government had introduced the Navratna scheme, in 1997, to identify Central Public Sector Enterprises (CPSEs) that had comparative advantages and to support them in their drive to become global giants. Under this scheme, the Boards of Navratna CPSEs have been delegated enhanced powers in the areas of (i) capital expenditure, (ii) investment in joint ventures/subsidiaries, (iii) mergers & acquisitions, (iv) human resources management, etc.

2.3.2 Presently, there are 17 Navratna CPSEs as under:

(i) Bharat Electronics Limited

(ii) Bharat Petroleum Corporation Limited

(iii) Container Corporation of India Limited

(iv) Engineers India Limited

(v) Hindustan Aeronautics Limited

(vi) Hindustan Petroleum Corporation Limited

(vii) Mahanagar Telephone Nigam Limited

(viii) National Aluminium Company Limited

(ix) National Buildings Construction Corporation Limited

(x) NLC India Limited

(xi) NMDC Limited

(xii) Oil India Limited

(xiii) Power Finance Corporation Limited

(xiv) Power Grid Corporation of India Limited

(xv) Rashtriya Ispat Nigam Limited

(xvi) Rural Electrification Corporation Limited

(xvii) Shipping Corporation of India Limited

2.3.3 The salient features of Navratna Scheme indicating the criteria for grant of Navratna status, powers delegated to the Boards of Navratna CPSEs and conditions/guidelines for exercise of delegated Navratna powers are at **Annexure-**4.

2.4 Miniratna scheme

2.4.1 In October 1997, the Government had 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 more efficient and competitive. These companies, called Miniratnas, are in two categories, namely, Category-I and Category-II.

2.4.2 The salient features of Miniratna scheme are at **Annexure-5**.

2.4.3 Presently, there are 73 Miniratna CPSEs (58 Category-I and 15 Category-II). The list of these 73 Miniratna CPSEs is indicated at **Annexure-6**.

2.5 On the basis of recommendations of NITI Aayog, the revised procedure for exercise of delegated power to establish financial joint ventures and subsidiaries by the Boards of Maharatna, Navratna and Miniratna CPSEs was notified to all administrative Ministries/ Departments and concerned stakeholders.

2.6 DPE organized a one day Conference on "Strengthening Joint Ventures of PSUs" in collaboration with Indian Institute of Public Administration on 22nd March, 2016 in New Delhi. More than 70 participants from various CPSEs/Ministries and their joint ventures participated in this Conference and deliberated on various issues involved in setting up and management of JVs.

Chapter 3

Corporate Governance & Professionalization of Board in Central Public Sector Enterprises (CPSEs)

3.1. Corporate Governance - Background

3.1.1 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 Keeping in view the importance of Corporate Governance principles in ensuring transparency and enhancing the trust of stakeholders and the fact that there was a continued need to adopt and apply the good Corporate Governance practices in respect of CPSEs where huge public funds are invested, mandatory guidelines on Corporate Governance for all CPSEs were approved by the Government in March, 2010.

3.1.3 The guidelines cover issues like composition of Board of CPSEs, Audit Committee, Remuneration Committee, Subsidiary companies, Disclosures, Code of conduct and ethics, Risk management and reporting. They also include provisions relating to monitoring the compliance of guidelines by the CPSEs and formation of Remuneration Committee. Since, the concept of Corporate Governance is dynamic in nature, it has also been provided that suitable modifications in these guidelines would be carried out to bring them in line with prevailing laws, regulations, Acts, etc. from time to time.

3.1.4 The salient features of these guidelines are at **Annexure-7**.

3.1.5 The CPSEs were graded on the basis of their compliance with Guidelines on Corporate Governance for CPSEs for the year 2015-16.

3.2 Professionalization of Board of CPSEs

3.2.1 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.

3.2.2 As regards selection and appointment of non-official Directors on the Boards of CPSE, the following eligibility criteria has been prescribed:-

Criteria of Experience

(i) Retired Government officials with a minimum of 10 years experience at Joint Secretary level or above.

(ii) Persons who have retired as CMD/CEOs of CPSEs and Functional Directors of the Schedule 'A' CPSEs. The ex-Chief Executives and ex-Functional Directors of the CPSEs will not be considered for appointment as non-official Director on the Board of the CPSE from which they retire. Serving Chief Executives/Directors of CPSEs will not be eligible to be considered for appointment as non-official Directors on the Boards of any CPSEs.

(iii) Academicians/Directors of Institutes/ Heads of Department and Professors having more than 10 years teaching or research experience in the relevant domain e.g. management, finance, marketing, technology, human resources, or law.

(iv) Professionals of repute having more than 15 years of relevant domain experience in fields relevant to the company's area of operation.

(v) Former CEOs of private companies if the company is (a) listed on the Stock Exchanges or (b) unlisted but profit making and having an annual turnover of at least ₹250 crore.

(vi) Persons of eminence with proven track record from Industry, Business or Agriculture or Management.

(vii) Serving CEOs and Directors of private companies listed on the Stock Exchanges may also be considered for appointment as part-time non-official Directors on the Boards of CPSEs in exceptional circumstances.

Criteria of Educational Qualification

Minimum graduate degree from a recognized university.

Criteria of Age

The 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.

3.2.3 The proposals for appointment of non-official Directors are initiated by the concerned Administrative Ministries/ Departments. The selection of non-official Directors in respect of all CPSEs is made by the Search Committee which presently consists of Secretary (DoPT) as chairperson, Secretary (DPE), Secretary of the administrative Ministry/Department of the CPSE and 2 non-official Members. The concerned Administrative Ministry/ Department appoints the non-official Directors on the basis of recommendations of Search Committee after obtaining the approval of competent authority.

3.2.4 During the year 2016, Search Committee held 8 meetings and recommended names for filling up 233 positions of non-official Directors on the Boards of various CPSEs.

3.3 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 by the concerned administrative Ministries/Departments.

3.4.1 The administrative Ministries/Departments were regularly advised to take necessary steps to ensure appointment of requisite number of non-official Directors and at least one woman Director on the Boards of CPSEs under their respective administrative jurisdiction.

3.4.2 As advised by Chairman(SEBI), the concerned Ministries/Departments were requested to undertake immediate action in consultation with Department of Investment and Public Asset Management to ensure compliance with prescribed norms relating to minimum public shareholding in respect of listed CPSEs under their respective administrative control within stipulated time-limits.

3.4.3 DPE organized the four orientation programmes for capacity building of newly appointed non-official Directors and Government Directors of CPSEs. The participating Directors were sensitized about their role and responsibilities in the context of the newly enacted Companies Act, 2013 and important issues related to better functioning of Boards. These were held on:

(i) 11th and 12th February, 2016 in Imphal in collaboration of NHPC Limited which was attended by 20 non-official Directors and Government Directors of various CPSEs and senior officers of Government of Manipur.

(ii) 29th and 30th March, 2016 in Mumbai in collaboration with ONGC which was attended by 20 non-official and Government Directors of various CPSEs.

(iii) 26th and 27th September, 2016 in Shillong in collaboration with NEEPCO Limited which was attended by 31 non-official Directors of various CPSEs

(iv) 11th and 12th November, 2016 in Jaipur in collaboration with Oil India Limited which was attended by 26 non-official Directors of various CPSEs.

3.5 **International Cooperation**: - During the year, the following initiatives were taken to extend international cooperation with Government agencies having similar mandate as DPE in other countries in order to facilitate information exchange and knowledge sharing.

(i) DPE hosted a high level delegation from Government of Ethiopia headed by H.E. Mrs. Demitu Hambisa, Minister of Public Enterprises on 14th and 15th March, 2016. The delegation was apprised about issues related to management of CPSEs in India and working of DPE. The delegation interacted with management of ONGC, NSIC and CCI. The delegation also interacted with Minister of Heavy Industries & Public Enterprises during its stay in India.

(ii) DPE hosted a delegation from State-owned Assets Supervision and Administration Commission of the State Council (SASAC), People's Republic of China led by Mr. Lu Zhijum, Director General (Foreign Affairs), SASAC from 23rd May, 2016 to 25th May, 2016. The visiting delegation interacted with senior officials of DPE and also held meetings with senior officials of Department of Heavy Industry, Department of Industrial Policy & Promotion, Ministry of Road Transport & Highways and Ministry of Shipping. The visiting delegation was briefed on role of DPE in management of CPSEs and initiatives being taken by DPE to improve the performance of CPSEs. The visiting delegation suggested signing of MoU between SASAC and DPE, India and invited delegation from DPE to visit China to understand working of SASAC.

(iii) DPE, in consultation with the Ministry of External Affairs, organized the first meeting of BRICS Forum on SOE Governance and Reforms on 18th and 19th November, 2016 at Chennai. The meeting was inaugurated by Hon'ble Minister of Heavy Industries & Public Enterprises. Delegations from South Africa (headed by their Cabinet Minister), India, China and Russia participated in the meeting. More than 50 participants from delegations of BRICS member countries and CPSEs in the country attended the meeting.

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/Holding Company. Under this agreement, the CPSEs undertake to achieve the targets set in the agreement at the beginning of the year and submitthemselves to an evaluation on the basis of its achievements at the end of the year.

4.2 The Government of India introduced the system of MoU in the year 1986, based on recommendations given by Arjun Sen Gupta Committee report (1984). The report recommended that the CPSEs should enter into agreements with their Administrative Ministries for five years, with progress to be reviewed annually. The MoU system was given broader thrust by the Government after the announcement of the New Industrial Policy of 1991. In view of the above policy statement, the scope of MoU system has been extended to cover nearly all CPSEs over a period of time and this is given below:

Year	No. of MoU's signed	Year	No. of MoU's signed
1987-88	4	2008-09	147
1991-92	72	2009-10	197
2001-02	104	2010-11	198
2002-03	100	2011-12	197
2003-04	96	2012-13	196
2004-05	99	2013-14	197
2005-06	102	2014-15	214
2006-07	113	2015-16	215
2007-08	144	2016-17	234

4.3 Institutional Arrangements for Implementation of MoU Policy

4.3.1 High Powered Committee (HPC) on MoU: The High Powered Committee (HPC) on MoU 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. The HPC is headed by the Cabinet Secretary and comprises of Finance Secretary, Secretary (Expenditure), CEO, NITI Aayog, Secretary (Statistics & Programme Implementation), Chairman, Public Enterprises Selection Board; Chief Economic Advisor, Department of Economic Affairs; Chairman, Tariff Commission; and Secretary (Performance Management). The HPC on MoU gives guidance and directions with respect to the determination of the principles and parameters for evaluating the performance of CPSEs.

4.3.2 **Inter-Ministerial Committee (IMC) on MoU:** Inter-Ministerial Committee on MoU consists of Secretary, DPE as Chairman, Secretary of concerned administrative Ministry/Department or his representative not below the rank of Joint Secretary (Member), Secretary, Ministry of Statistics and Programme Implementation or his representative not below the rank of Joint Secretary (Member), Additional Secretary, NITI Aayog or his representative not below the rank of Joint Secretary (Member). Secretary, DPE may co-opt any officer who is a finance expert in case the need is felt, Joint Secretary/Adviser (MoU), DPE provides secretarial support to the Committee.

The role of IMC is to approve the MoU targets and recommend its evaluated score and rating to the High Powered Committee (HPC).

4.3.3 **Pre-negotiation Committee (PNC):** The role of the Pre-negotiation Committee (earlier known as Standing Committee on MoU) would be to assist IMC in determining the most appropriate and relevant parameters for measuring improvement in performance and for fixing targets. Meetings of the Pre-negotiation Committee are held in each case before the meetings of IMC to look at the trends, discuss, negotiate and recommend MoU parameters and targets. The composition of Pre-negotiation Committee comprises of Adviser (MoU), DPE, concerned Joint Secretary/Adviser, Administrative Ministry, concerned Adviser (NITI Aayog), Director (MoU) and representative from Ministry of Statistics and Programme Implementation (MoSPI).

4.4 MoU Guidelines: DPE has finalized the MoU guidelines for 2017-18 and onwards. A Copy of Guidelines is at **Annexure-8**.

4.5 MoU Evaluation

4.5.1 Evaluation of MoU of the CPSE is done after the end of the year on the basis of actual achievements vis-à-vis the MoU targets of CPSEs (Holding as well as Subsidiaries). Details in this regard are given below:

Item	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total MoUs Signed	198	197	196	197	214	215
Evaluation Report Submitted	161	175	189	187	200	191

4.5.2 A comparison of the MoU ratings secured by the CPSEs in the last 10 years is as under:-

Rating	Number of Public Sector Enterprises under each rating over Years									
	2006-07	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Excellent	46	55	47	73	67	76	75	76	73	57
V. Good	37	34	34	31	44	39	39	38	53	58
Good	13	15	25	20	24	33	37	36	41	28
Fair	06	08	17	20	24	25	36	29	26	22
Poor	00	00	01	01	02	02	02	08	7	26
Total	102	112	124	145	161	175	189	187	200	191

Chapter 5

Permanent Machinery of Arbitration (PMA)

5.1 Permanent Machinery of Arbitration (PMA) has been set up in Department of Public Enterprises for resolving commercial disputes, between CPSEs inter-se as well as between a CPSE and a Central Government Department/Ministry/Banks/ Port Trusts (except tax matters and Ministry of Railways) in 1989 in compliance of directions of Hon'ble Apex Court in the case of ONGC v/s. Collector of Central Excise, Mumbai vide OM dated 29.3.1989 and 30.6.1993.

5.2 PMA guidelines have been revised from time-to-time and were last revised on 12.6.2013 and 24.3.2014. The disputes are required to be referred to Department of Public Enterprises for reference to the Arbitrator of PMA. Secretary, Department of Public Enterprises on being satisfied with prima facie existence of a dispute, refers the dispute to the Arbitrator of the PMA for Arbitration. The Arbitration Act, 1996 is not applicable in these cases. No outside lawyer is allowed to appear on behalf of either party for presenting/defending the cases. But the parties can take help of their own full time law officers.

5.3 The Arbitrator issues notices to parties concerned for submission of facts of the case and their claims and counter claims. The parties argue their case before him. Based on written records and oral evidence, the Arbitrator publishes an award. An appeal against the award of the Arbitrator can be made to the Secretary, Ministry of Law, for setting aside or revision of the award. The decision of Secretary, Ministry of Law is final and binding on the parties and no appeal can be made in any Court of Law/ Tribunal against the decision.

5.4 The PMA is designed to be self-supporting and the disputants are required to share equally the Arbitration Fee (payments are made through DDO, Department of Public Enterprises) worked out by the Arbitrator based on the formula given in the guidelines. During the year 2016-17 an amount of ₹1,29,62,438/- was collected from the parties as arbitration fees.

5.5 Since inception, 441 cases have been referred to the Arbitrator of PMA, till December, 2016, out of which Awards in 375 cases have been published while 15 cases are *sine die* leaving a balance of 51 cases.

5.6 From time-to-time, the Department of Public Enterprises monitors the progress of implementation of the Award of the Arbitrator.

Chapter 6

Wage Policy and Manpower Rationalization

6.1 The Department of Public Enterprises (DPE) functions as the nodal Department inter-alia, in respect of policy relating to pay revision of executives holding posts at the Board Level as well as below Board level and non-unionized supervisors and also, wage settlement of workmen in CPSEs. The Department renders advice to Administrative Ministries / Departments and CPSEs in matters relating to revision in scales of pay of executives and in the wage policy of workmen. The CPSEs are largely following the Industrial Dearness Allowance (IDA) pattern of scales of pay. In some CPSEs, Central Dearness Allowance (CDA) pattern of scales of pay are being followed. DPE also issues quarterly DA orders in respect of IDA employees. The DA orders for CDA employees are issued for six monthly periods.

6.2 Second Pay Revision Committee

6.2.1 On the recommendations of the 2nd Pay Revision Committee (PRC) headed by Justice M.J. Rao (retired judge of the Supreme Court) and also, on the recommendations of a Committee of Ministers, headed by the then Home Minister (Chidambaram Committee), Government issued orders vide DPE OMs dated 26th November, 2008, 09th February, 2009 and 02nd April, 2009 regarding pay revision w.e.f. 01st January, 2007 in respect of executives and non-unionized supervisors of CPSEs following the IDA pattern of pay scales.

6.3 Third Pay Revision Committee

6.3.1 Government vide resolution dated 09th June, 2016 has constituted the third Pay Revision Committee, under the Chairmanship of Justice (Rtd) Satish Chandra for the pay revision of Board level & below Board level Executives and Non-Unionised Supervisors of CPSEs w.e.f. 01st January, 2017. The Committee has submitted its report which is under examination.

6.4 Wage Revision for Workmen under IDA pattern

6.4.1 DPE has issued policy guidelines for the 7th Round of Wage Negotiations with unionized workmen of CPSEs (generally effective from 01st January, 2007) for a period of 10 years vide OM dated 09th November, 2006. However, it was subsequently decidedvide OM dated 01st May, 2008 that administrative Ministries / Departments may take a decision on a case by case basis for the periodicity of wage settlement for less than 10 years, but not for less than 5 years with the approval of their Minister. Majority of the CPSEs have adopted a10 years periodicity of wagesettlement but a few CPSEs have adopted the 5 years periodicity of wage settlement. Policy guidelines for the 7th Round (2nd part) of Wage Negotiations with a minimum five year periodicity generally effective from 01st January, 2012 has been issued vide DPE OM dated 13th June, 2013.

6.5 Pay revision of employees under CDA Pattern in CPSEs

6.5.1 Pay scales on CDA pattern are applicable to the clerical staff, unionized cadres and executives of 69 CPSEs who were on the rolls of these CPSEs as on 01st January, 1986 and upto 31st December, 1988 and were in receipt of the CDA pattern pay scales during that time. A High Powered Pay Committee (HPPC) was appointed by the Government in pursuance of the Supreme Court directions dated 12th March, 1986. It submitted its Report to the Government on 24th November, 1988 and its recommendations were implemented in these CPSEs. In pursuance of the Supreme Court direction dated 03rd May, 1990 read with subsequent directions dated 28th August, 1991, IDA pattern and related scales of pay were introduced in these CPSEs with effect from 01st January, 1989. DPE O.M. dated 10th August, 2009 clarified that 'appointment' includes selection, promotion and deputation. Therefore, all appointments including appointment on promotion should be under the IDA pattern of pay scales as per the directions of the Hon'ble Supreme Court.

6.5.2 DPE vide O.Ms dated 14th October, 2008 and 20th January, 2009 has revised pay scales and allowances w.e.f. 01st January, 2006 of the employees of CPSEs following the CDA pattern w.e.f. 01st January, 2006. The benefit of pay revision was allowed to the employees of those CPSEs that are not loss making and are in a position to absorb the expenditure on account of pay revision from their own resources without any budgetary support from the Government.

Chapter

7 Categorization of CPSEs

7.1 The Public Sector Enterprises are categorized into four schedules namely 'A', 'B', 'C' & 'D'. The categorization of CPSEs has implications mainly for the organizational structure and salary of Board level incumbents of the concerned CPSE. It also plays a role in grant of autonomy to the Boards of CPSEs under the 'Ratna' scheme.

7.2 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 before tax, number of employees and units, capacity addition, revenue per employee, sales/ capital employed, capacity utilization, value added per employee and qualitative factors such as national importance, complexities of problems being faced by the company, level of technology, prospects for expansion and diversification of activities and competition from other sectors, etc. The other factors, wherever available, relate to share price, MOU ratings, Maharatna/ Navratna / Miniratna status and ISO certification. In addition, the factor relating to the critical/strategic importance of the corporation is also taken into account. The present procedure involves consideration of the proposals in the administrative Ministry concerned and the Department of Public Enterprises which consults the Public Enterprises Selection Board. At present (as on 31st December, 2016) there are 64 Schedule 'A', 68 Schedule 'B', 45 Schedule 'C' and 4 Schedule 'D' CPSEs. The schedule-wise list of CPSEs is given in **Annexure-9**.

7.3 During the year 2016, the posts of Director (Operations) and Director (Marine Services) in Kamarajar Port Limited were re-designated as Director (Port Operations) and Director (Business Development & Projects) respectively.

7.4 During the year 2016, the following important guidelines/instructions were issued:

(i) The revised guidelines on writing Annual Performance Appraisal Reports (APARs) of top management incumbents of CPSEs were issued in order to ensure timely completion of APARs and to provide that in case an APAR for a financial year is not recorded by 31st December of the year in the year in which the financial year ended, no remarks may berecorded thereafter and the officer may be assessed on the basis of overall record and self-assessment for the year, if he has submitted his self-assessment in time.

(ii) Following the directions of ACC, instructions were issued to all administrative Ministries/ Departments to the effect that the tenure of nominee part-time Directors on the Board of CPSEs shall be fixed as three years or till the date of superannuation or till further orders at par with tenure prescribed for non-official Directors of CPSEs.

(iii) On the basis of decision of ACC, directions were issued to all administrative Ministries/ Departments to the effect that the Appointments Committee of the Cabinet (ACC) has delegated its power to approve additional charge arrangements with respect to Board level posts in Schedule 'C' and 'D' CPSEs to the Minister-in-charge of the concerned administrative Ministry/ Department, irrespective of the period for which this additional charge is assigned, subject to the conditions specified in para III of the instructions dated 17th August, 2005.

Chapter 8

Revival and Restructuring of Sick/loss making CPSEs

8.1 Introduction

8.1.1 As the Central Public Sector Enterprises (CPSEs) operate under dynamic market conditions, it is quite natural to see ups-and-downs in their performance. Some CPSEs have, however, been incurring losses continuously for the last several years. The accumulated loss in many of these cases has exceeded their net worth.

8.2 Reasons for Losses and Sickness in CPSEs

8.2.1 The reasons for losses/ sickness in CPSEs vary from enterprises to enterprise. However, some common problems for sickness in CPSEs include old and obsolete plant and machinery, outdated technology, low capacity utilization, low productivity, poor debt–equity structure, excess manpower, weak marketing strategies, stiff competition, lack of business plans, dependence on Govt. orders, heavy interest burden, high input cost, resource crunch, etc. With liberalization and opening up of the economy, many CPSEs that did not evolve fast enough lost ground to private companies. Attempts have, therefore, been made to overcome "sickness" in these CPSEs through various measures.

8.3 Streamlining the mechanism of revival/ restructuring of Central Public Sector Enterprises (CPSEs)

8.3.1 Multiple mechanisms for restructuring / revival of sick/loss making CPSEs existed. Sick Industrial Companies as defined in the Sick Industrial Companies Act 1985 are referred to the Board for Industrial and Financial Reconstruction (BIFR), which suggests a restructuring plan. Board for Reconstruction of Public Sector Enterprises (BRPSE), which was created in 2004 to advise the Government on the restructuring or revival plan of referred CPSEs, has been wound up in November, 2015.

8.3.2 Government has taken steps to make the mechanism and process for revival/ restructuring of CPSE time bound, comprehensive, performance driven and efficient. The Government has decided removing the multiple layers in decision making process to ensure timely revival/ restructuring of sick CPSEs. It has been decided that revival/restructuring of sick/ incipient sick CPSE is to be merit based taking into account strategic, national and business concerns of the CPSE. Accordingly, Government has wound up BRPSE and the concerned administrative Ministries/ Departments will be responsible to monitor sickness of CPSEs functioning under them and take timely redressal measures with the approval of the competent authority. DPE has issued on 29th October, 2015 guidelines for "Streamlining the mechanism for revival and restructuring of sick/ incipient sick and weak Central Public Sector Enterprises; General principles and mechanism of restructuring" to be followed by the administrative Ministries /Departments in preparation of proposals for revival/ restructuring or closure of CPSEs under their administrative control. The guidelines are given in **Annexure-10.**

8.3.3 These guidelines are laid down for streamlining the mechanism for restructuring/ revival or closure of sick or incipient sick CPSEs and weak CPSEs and replace the multiple options available for the same purpose. These guidelines, inter alia, laid down parameters to identify sick, incipient sick CPSE and weak CPSE by the concerned administrative Ministry/Department of CPSEs. The administrative Ministry may prepare a revival or restructuring plan for a CPSE which may involve comprehensive restructuring, disinvestment, closure etc. of the sick and incipient sick CPSE and take it directly to the competent authority for appropriate decision. The concerned administrative Ministries/ Departments to take steps/initiate process in a specified timeframe so that such decisions are taken and implemented in a time bound manner.

8.3.4 The administrative Ministry, at the end of the each financial year, will analyse the performance of its CPSEs and classify them into the categories namely sick, incipient sick and weak CPSEs, within 6 months of the closure of the financial year or within one month from finalisation of Annual Accounts, whichever is earlier.

8.4 Definition of sick, incipient sick and weak CPSEs:

(i) Sick CPSEs:

As per the guidelines, a CPSE is considered sick, if it meets one of the following criteria:

a. If it is declared sick as per the provisions of the Companies Act, 2013.

b. If it's net worth is negative.

(ii) Incipient sick CPSEs:

As per the guidelines, a CPSE is considered incipient sick, if it meets one of the following criteria:

a. If its net worth is less than 50% of its paid-up capital in any financial year.

b. If it had incurred losses consecutively for three years.

(iii) Weak CPSEs:

As per the guidelines, a CPSE is considered weak or sub-optimally performing, if it meets one of the following criteria:

a. If its turnover or its operational profit has declined by more than an average of 10% in the last 3 years.

b. If its profit before tax is less than income from the other sources.

c. If its trade receivable and inventories are more than 50% of net worth of the CPSE.

d. If the claims against the company, not acknowledged as debts, are more than its net worth.

e. Any other criteria as may be prescribed to quantify early signs of weakness in the performance of the CPSEs by the government.

In all the reference to net worth, it would have the same meaning as defined under Section 2 (57) of the Companies Act, 2013.

8.4.1 As per the guidelines, the administrative Ministry/Department will classify CPSEs functioning under their control into sick, incipient sick and weak CPSEs within 6 months of the closure of the financial year or within one month from finalization of Annual Accounts, whichever is earlier. The concerned administrative Ministry/ Department will formulate revival/ restructuring/ closure road map for sick CPSEs as per the principles outlined in the guidelines. This would be done within three months from the issue of these guidelines in case of existing sick CPSEs and within nine months from the end of the financial year for a CPSE becoming sick subsequently.

8.4.2 The administrative Ministry will take the following action:

(a) The administrative Ministry will put weak CPSEs under "observation and intensive review" to arrest the early signs of weakness in such CPSEs. It may include nomination of independent expert members on the board, quarterly intensive review or special reviews for taking corrective business, operational and financial measures at the board level, fixing the responsibility for declining performance or non-performance or any other corrective step as may be appropriate and necessary by the administrative Ministry or Department.

(b) The administrative Ministry will initiate the process for preparation of the restructuring/ revival plan, which may include disinvestment or privatisation or closure options, for sick/ incipient sick CPSEs based on the classification as given above within 6 months from the closure of the financial year or within one month from finalisation of Annual Accounts, whichever is earlier.

(c) Restructuring and revival plan for the sick and incipient sick CPSEs shall be prepared within nine months of the closure of the financial year.

(d) External expert agency which has experience and expertise of the business environment, operational issues, technology option and financial viability of the sector in which such CPSE is functioning may be engaged by the government and shall function under the supervision of the administrative ministry for preparation of the future road map.

8.4.3 A Committee has been constituted in NITI Aayog for regular monitoring of the implementation of revival packages sanctioned for the sick/loss making CPSEs.

8.5 Guidelines on Time bound Closure of Sick/ Loss making Central Public Sector Enterprises (CPSEs) and disposal of movable and immovable assets

8.5.1 DPE has issued guidelines on 07th September, 2016 for "time bound closure of Sick/ Loss

Making Central Public Sector Enterprises (CPSEs) and disposal of Movable and Immovable assets." The detailed guidelines are given in **Annexure-11.**

8.5.2 The guidelines are intended to expeditiously complete the various processes and procedures for closure of CPSEs and lay down responsibilities of the administrative ministries/ departments/ CPSEs, including the support required to be extended by nodal departments/ organisations like Ministry of Finance, NITI Aayog, etc.

8.6 Applicability of Time bound Closure of Sick / Loss making Central Public Sector Enterprises (CPSEs)

8.6.1 These guidelines shall apply to all sick/ loss making CPSEs, where:

(i) Approval for closure has been obtained by administrative Ministry/ Department from the CCEA/ Cabinet; or

(ii) In-principle approval for closure has been given by the CCEA/ Cabinet on the proposal/ recommendation of the administrative Ministry/ Department/ NITI Aayog; or

(iii) The administrative Ministry/ Department has decided for the closure of the CPSE.

Chapter 9

Counselling, Retraining and Redeployment (CRR)

9.1 In the context of restructuring of Central Public Sector Enterprises (CPSEs), rationalization of manpower has become a necessity. The policy of the Government has been to implement reforms with a humane face and provide adequate safety net for the workers adversely affected due to right sizing. Considering the need to have safety net, Government had established the National Renewal Fund (NRF) in February, 1992 to cover the expenses of VRS and to provide retraining to the workers in the organized sector. The retraining activity was administered by Department of Industrial Policy & Promotion. After the abolition of NRF in February, 2000, the Scheme for Counselling, Retraining and Redeployment (CRR) of Rationalized Employees of CPSEs is being implemented by Department of Public Enterprises since 2001-02. CRR Scheme was modified in November, 2007 in order to widen its scope and coverage. One dependent of VRS optee is also eligible in case the VRS optee himself/herself is not interested.

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

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

9.3 The main elements of the CRR programme are Counselling, Retraining and Redeployment.

Counselling helps the rationalized employees to cope with the trauma of leaving the organization, to properly manage their funds including VRS compensation, to get motivated for facing challenges and to re-join the productive process. ***Retraining*** strengthens their skill/expertise. Selected training institutes impart need-based training in modules of 30 days / 45 days / 60 days. The faculty support is both internal and external. The approach is to provide classroom lectures as well as field experience. In the process, trainees interact with experts from various fields and are helped in preparation/finalization of project reports. The retraining should lead to ***Redeployment*** 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.

9.4 CPSEs are the key to the success of the scheme. They are expected 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.

9.5 During the year 2015-16, plan allocation of ₹3.20 crore (BE) and ₹ 2.78 crore (RE) was allocated with a target for coverage of 3000 VRS/VSS optees/dependents. 9 nodal agencies with 21 Employees Assistance Centres (EACs) were operational during the year 2015-16.

9.6 Year wise number of persons trained under the scheme is shown as under:-

Year	Number of VRS optees trained
2001-02	8,064
2002-03	12,066
2003-04	12,134
2004-05	28,003
2005-06	32,158
2006-07	34,398
2007-08	9,728
2008-09	9,772
2009-10	7,400
2010-11	9,265
2011-12	9,400
2012-13	7,506
2013-14	3,230
2014-15	2,525
2015-16	3,150
Total	1,88,799

9.7 With a view to broaden the network of Training Providers and also to follow standardization methodology of training, design and delivery, it has been envisaged to undertake training programme under CRR in collaboration with National Skill Development Corporation (NSDC) under aegis of Ministry of Skill Development & Entrepreneurship (MSDE)during 2016-17.

Chapter

10 Voluntary Retirement Scheme (VRS)

10.1 As a result of the restructuring in some Central Public Sector Enterprises (CPSEs), Government announced the Voluntary Retirement Scheme (VRS) in October, 1988. A comprehensive package was later notified by the Department of Public Enterprises (Government of India) in May, 2000. In view of the difficulties faced by some CPSEs where the wage revision of 1992 or 1997 (as the case may be) could not be made effective, the VRS was further liberalized through subsequent notification of November, 2001. This notification, inter-alia, provides for 100% additional compensation for the employees where wage revision of 1992 could not be made effective. Similarly, 50% additional compensation was allowed for employees where wage revision of 1997 could not be made effective. The ex-gratia payment under VRS to employees following CDA pattern at 1986 scales of pay has been also enhanced by 50% w.e.f. 26th October, 2004. These increases in VRS compensation are to be computed based on the existing pay of employees.

10.2 VRS in CPSEs that can support the scheme on their own

10.2.1 Enterprises, which are financially sound and can sustain VRS on their own, can frame their own schemes of VRS and make it attractive enough for employees to opt for it. They may offer as compensation upto 60 days salary (only Basic Pay +DA) for every completed year of service. Such compensation will, however, not exceed the salary for the balance period of the service left.

10.3 VRS in marginally profit or loss Making / sick / unviable CPSEs

10.3.1 Marginally profit /loss making CPSEs as well as sick and unviable units may adopt either of the following models:

Gujarat Model, under which the compensation is computed by allowing 35 days salary for every completed year of service and 25 days for each year of the balance service left until superannuation subject to the condition that compensation shall not exceed the sum of salary for the balance period left for superannuation.

Department of Heavy Industry (DHI) model, under which ex-gratia payment made is equivalent to 45 days emoluments (Pay + DA) for each completed year of service <u>or</u> the total emoluments for the balance period of service, whichever is less. The employees who have completed not less than 30 years of service will be eligible for a maximum of 60 (sixty) months salary/wage as compensation and this will be subject to the amount not exceeding the salary/wage for the balance period of service left.

Chapter

11

Executive Development Programmes

11.1 The Central Public Sector Enterprises (CPSEs) design their own human resource development programmes to upgrade skills and knowledge of middle and senior level executives by giving them training in various fields of management development through their own management institutes or outsourcing the services of premier management training institutions in India.

11.2 DPE is an ex-officio member of the Executive Board of the Standing Conference of Public Enterprises (SCOPE), New Delhi. Secretary, DPE is member on the Board of Governors of the Institute of Public Enterprise, Hyderabad.

11.3 India is a founder Member of the International Center for Promotion of Enterprises (ICPE). This institute was established as an inter-Governmental organisation of developing countries for improving the performance of their public enterprises as strategic instrument of economic and social development. Presently, the post of Director General, ICPE is held by an Indian nominee Dr. Anand N. Asthana. ICPE pursues its goals by carrying out research, education, training, consultancy work and disseminating information through documentation and publishing activities. These are directed towards bridging the gap between theory and practice on a wide range of issues pertaining to corporate governance, management and other related fields. India has benefited in the past from Seminars/Workshops, Conferences on topics of interest to PSEs organized by ICPE in collaboration with Department of Public Enterprises for executives of Public Sector Enterprises in India.

Chapter 12

Corporate Social Responsibility (CSR) and Sustainability

12.1 As per Section-135 of Companies Act, 2013, all profit making corporates, including Central Public Sector Enterprises (CPSEs) exceeding threshold limits prescribed in the Act regarding net worth of ₹ 500 crore, or turnover of ₹ 1000 crore or net profit of ₹ 5 crore in pursuance of its CSR Policy are mandated to spend at least 2% of the average net profits (Profit Before Tax) of the company made during the three immediately preceding years.

12.2 DPE Guidelines on CSR and Sustainability, 2014 issued to CPSEs have now been withdrawn in August, 2016, with the approval of Hon'ble Minister (Heavy Industries and Public Enterprises). The CPSEs are now required to follow the provisions contained in Section-135 of the Companies Act, 2013 and the CSR Rules notified thereunder by M/o Corporate Affairs and the Schedule-VII of the Act which lists the activities that can be undertaken by CPSEs.

12.3 An advisory on observance of transparency and due diligence in selection and implementation of activities under CSR has been issued by Department of Public Enterprises to the CPSEs in August, 2016. Another advisory has been issued by DPE in August, 2016 requesting all Ministries/ Departments to bring to the notice of CPSEs under their jurisdiction the recommendations of 'Group of Secretaries on Swachh Bharat and Ganga Rejuvenation' for spending 33% of the CSR funds towards 'Swachh Bharat' and advise them to contribute/ participate, accordingly, towards Swachh Bharat activities under CSR till the Swachh Bharat Mission is achieved.

12.4. During the current financial year, DPE organized a Workshop on "Corporate Social Responsibility" in association with Bharat Heavy Electricals Ltd (BHEL) in New Delhi for CPSE executives to discuss implementation methodologies / mechanisms adopted to implement CSR, transparency in selection of activities under CSR and challenges faced after coming into force of provisions of Companies Act, 2013 on Corporate Social Responsibility (CSR) and Companies (CSR Policy) Rules, 2014 notified thereunder.

12.5 DPE organized North East Regional CSR Conclave in association with Indian Chamber of Commerce (North East Initiative) in Guwahati for CPSE executives and State level PSEs to increase awareness regarding implementation of provisions of Companies Act, 2013 on CSR, Companies (CSR Policy) Rules, 2014, Schedule-VII of the Act and also to bring together Central Public Sector Enterprises and State Government authorities concerned with developmental activities in the north eastern States and NGOs to discuss issues relating to implementation of CSR with special focus on North Eastern Region (NER).

Chapter 13

Compliance Report by CPSEs

13.1 Department related Parliamentary Standing Committee on Industry in its 216th report had recommended that DPE should play a meaningful and effective role in getting the policies and guidelines implemented by the PSEs. In compliance of this, the Department has made a provision in MoU Guidelines 2015-16 providing for one negative mark for non-compliance of DPE guidelines. The provision has been made more stringent by prescribing in MoU 2016-17 that CPSEs which are otherwise "Excellent' would be downgraded to very good, if they do not comply with DPE guidelines having financial implication and in other case 5 marks will be deducted.

Chapter

14 Official Language Policy

14.1 DPE's Hindi Vibhag is primarily responsible for implementation of the various provisions of the Official Language Act 1963 and the Rules framed there under. Hindi Section is also responsible for translation of documents required to be issued under Section 3(3) of the Official Language Act, 1963. 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.

14.2 Resolutions, notifications, notices, circulars, papers laid on the Table of the both houses of Parliament etc. have been issued bilingually during the year 2016-17. 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 Addl. Secretary.

14.3 To create awareness and expanding the use of Hindi as Official Language, Hindi Pakhwada was organized by the Department from 15th September, 2016 to 30th September, 2016. During the Hindi Pakhwada four competitions namely, Hindi Essay writing, Hindi Shrutlekh, Hindi Noting/Drafting and Chitra Lekhan were organized for the officers and staff including officials on contract basis. Prizes and Certificates will be awarded to the winners.

14.4 Annual Public Enterprises Survey on the working of Central Public Sector Enterprises is presented in the Parliamentevery year by this department. This is very voluminous and comprehensive document brought out by the Department simultaneously in English and Hindi. Annual Report of this Department is also brought out every year in Hindi and English.

Chapter

15

Welfare of Women

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

15.2 The Department has also set up a complaint committee under the chairmanship of a woman 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 its O.M. dated 29th May, 1998, has already issued detailed guidelines and norms to the Chief Executives of CPSEs for observance and prevention of sexual harassment of working women.

15.3 The Department has a total sanctioned strength of 123. There are 73 officers/ staff, in position, including 7 Women 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.

Chapter

16

Statement of Plan Fund Expenditure

Department of Public Enterprises Demand No. 45 2016-17		
Scheme	**(Rs. in thousand)**	
	BE **2016-17**	**Total Expenditure** **2016-17** **(upto 31.12.2016)**
PLAN		
CRR Scheme		
Publications	000	000
Other Administrative Expenses	500	000
Professional & Special Services	3500	790
Grants-in-Aid	26000	19335
CRR Scheme NER **(Grant-in-Aid)**	2000	000
RDC Scheme		
Domestic Travel Expenses	8500	1377
Foreign Travel Expenses	500	000
Publications	2500	000
Other Administrative Expenses	5000	2102
Professional & Special Services	17500	6465
Grants-in-Aid	16000	4787
Contribution ICPE	10000	10000
RDC Scheme NER **(Grant-in-Aid)**	8000	6293
Total	**100000**	**51149**

Chapter 17

Reservation in services for Scheduled Castes (SCs), Scheduled Tribes (STs), Other Backward Castes (OBCs) and others, in the CPSEs

17.1 The Personnel and Recruitment Policies in respect of appointments against below Board level posts are formulated by the management of respective CPSEs. However, on matters of general importance, policy guidelines are issued by the Government of India to the enterprises which are to be kept in view by the latter while framing their individual corporate policies. Furthermore, formal Presidential Directives are issued to CPSEs by the concerned administrative Ministries to ensure reservation in regard to employment for Scheduled Castes, Scheduled Tribes and Other Backward Classes (OBCs), on similar lines as applicable in the Central Government Ministries/Departments.

17.2 A comprehensive Presidential Directive incorporating all important instructions on reservation for SCs and STs was issued by DPE to all the administrative Ministries/ Departments concerned on 25th April, 1991 for formal issuance of the same to CPSEs. Necessary changes and modifications are also circulated to CPSEs through their administrative Ministries/ Departments for information and compliance.

17.3 Subsequently, based on the recommendation of the Second Backward Classes Commission (Mandal Commission) and in accordance with the Hon'ble Supreme Court Judgment in the Indira Sawhney case, instructions were issued in providing reservation of 27% of vacancies in favour of Other Backward Classes (OBCs). The Department of Personnel & Training (DoPT) which formulates the policy in respect of reservation in services, has been issuing instructions from time to time on various aspects of reservation in favour of OBCs. Reservation for OBCs was made effective w.e.f. 8.9.1993. Department of Public Enterprises (DPE) has been extending these instructions to CPSEs through their administrative Ministries for compliance. A comprehensive Presidential Directive incorporating all instructions was forwarded by the Department of Public Enterprises to all administrative Ministries vide DPE's OM dated 27th July, 1995 for formal issuance to the CPSEs under their control.

17.4 DoPT instructions on allocation of a sub-quota of 4.5% for minorities within the 27% reservation for OBCs have been also extended vide DPE O.M. dated 2nd January, 2012 to the administrative Ministries/Departments (concerned with CPSEs) for implementation in CPSEs under their control.

17.5 The present quota for providing reservation for candidates belonging to Scheduled Castes, Scheduled Tribes and OBCs as well as other categories of persons entitled to reservation of vacancies is shown below:

Quota for Reservation

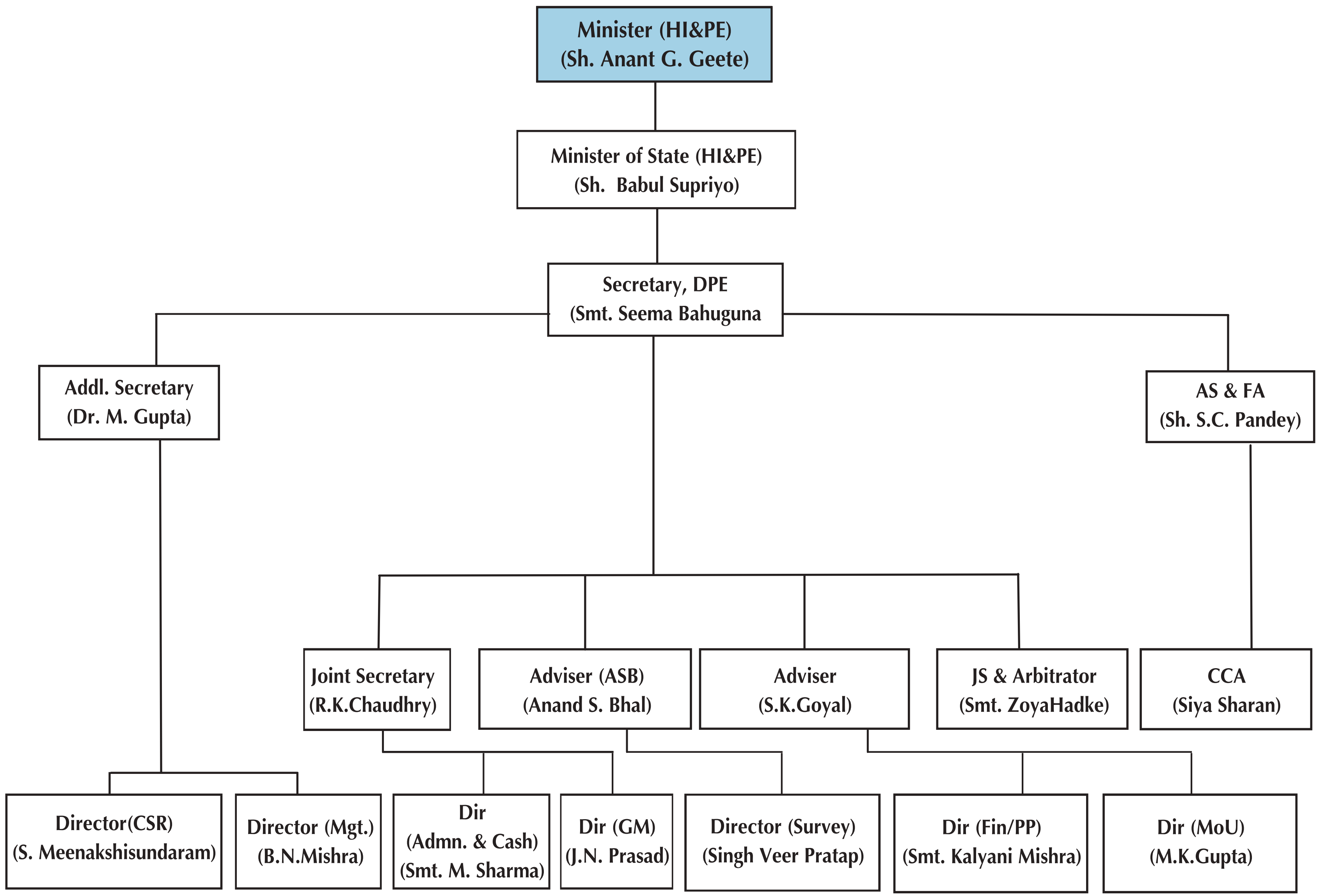
Category	Managerial/ Executive Level/ Supervisory Level	Workers Skilled	Workers Unskilled
Scheduled Castes	15%	15%	15%
Scheduled Tribes	7.5%	7.5%	7.5%
Other Backward Classes (including sub-quota of 4.5% for minorities)	27%	27%	27%
Physically Handicapped Persons	3%	3%	3%
Ex-servicemen & Dependents of those killed in action	–	14.5%	24.5%

17.6 The need to ensure timely filling up of reserved posts and the backlog has been stressed through various instructions issued from time to time. All administrative Ministries/Departments have been requested to advise the CPSEs under their administrative control to take effective steps to fill up the unfilled reserved posts in Direct Recruitment as well as in Promotion in accordance with the existing instructions. Further, the DoPT has issued necessary instructions from time to time to launch a Special Recruitment Drive (s) to fill up backlog of reserved vacancies for SCs, STs & OBCs in CPSEs. DPE has also extended these instructions to all administrative Ministries/Departments dealing with CPSEs to fill up these vacancies in a time bound manner.

17.7 DPE has also extended instructions vis-à-vis the scheme for reservation for Ex-servicemen in CPSEs through the administrative Ministries/ Departments. Instructions streamlining the procedure for recruitment of Ex-servicemen have also been issued with a view to augment their in-take in CPSEs. Such CPSEs, which are in a position to offer agencies/dealerships, have been advised to reserve quota of such agencies/dealership for allotment to Ex-servicemen.

17.8 DPE has issued Presidential Directive on 11.3.1997 to all the administrative Ministries / Departments concerned with the CPSEs in follow-up of DoPT instructions for employment of physically handicapped persons in CPSEs. 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 to be filled through Direct Recruitment. As per the Act, not less than 3% posts shall be reserved for Persons with Disabilities of which 1% each shall be reserved for persons suffering from (i) blindness or low vision (ii) hearing impairment and (iii) locomotor disability or cerebral palsy. All CPSEs have, accordingly, been advised to comply with the provisions of the Act.

Organogram of Department of Public Enterprises



Annexure-2
(Para 1.2.4)

Performance of CPSEs during 2015-16

(Rs. in crore)

Sl. No.	Item/Indicator	2015-16	2014-15	% growth over 2014-15
1.	Number of Operating CPSEs	244	236	3.39
2.	Turnover of (operating) CPSEs	1854667	1995176	(-)7.04
3.	Income of (operating) CPSEs	1764749	1965638	(-)10.22
4.	Investment in CPSEs	1171844	1095554	6.96
	4.1 Total paid up capital	228334	213020	7.19
	4.2 Total investment (equity plus long term loans)	1171844	1095554	6.96
	4.3 Capital employed (Paid up capital + long term loans and reserves & surplus)	1968311	1866944	5.43
5.	Profit of (profit making) CPSEs	144523 (165)	130364 (159)	10.86
6.	Loss of (loss making) CPSEs	(-) 28756 (78)	(-) 27498 (76)	4.57
7.	CPSEs neither making profit nor making loss	1	1	0
8.	Overall Net Profit	115767	102866	12.54
9.	Resaves and Surplus of CPSEs	796467	771389	3.25
10.	Net Worth of CPSEs	1020737	984409	3.69
11.	Contribution of CPSEs to Central Exchequer	278075	200593	38.63
12.	Foreign Exchange earnings of CPSEs	77216	103071	(-)25.08
13.	Foreign Exchange Outgo of CPSEs	388045	544561	(-) 28.74

Annexure-3
(Para 2.2.2)

Salient features of Maharatna scheme

Eligibility Criteria for grant of Maharatna status: The CPSEs meeting the following eligibility criteria are considered for Maharatna status:-

a) Having Navratna status

b) Listed on Indian stock exchange with minimum prescribed public shareholding under SEBI regulations

c) An average annual turnover of more than ₹25,000 crore during the last 3 years

d) An average annual net worth of more than ₹15,000 crore during the last 3 years

e) An average annual net profit after tax of more than ₹5,000 crore during the last 3 years

f) Should have significant global presence/international operations.

Procedure for grant/divestment of Maharatna status: - The procedure for grant of Maharatna status as well as their review is similar to that in vogue for the grant of Navratna status.

Powers delegated to Maharatna CPSEs: - The Boards of Maharatna CPSEs in addition to exercising all powers to Navratna CPSEs, exercise enhanced powers in the area of investment in joint ventures/subsidiaries and creation of below Board level posts. The Boards of Maharatna CPSEs have powers to (a) make equity investment to establish financial joint ventures and wholly owned subsidiaries in India or abroad and (b) undertake mergers & acquisitions, in India or abroad, subject to a ceiling of 15% of the net worth of the concerned CPSE in one project, limited to an absolute ceiling of ₹5,000 crore (Rs. 1,000 crore for Navratna CPSEs). The overall ceiling on such equity investments and mergers and acquisitions in all projects put together will not exceed <u>30%</u> of the net worth of the concerned CPSE. In addition, the Boards of Maharatna CPSEs have powers to create below Board level posts upto E-9 level.

Annexure-4
(Para 2.3.3)

Salient features of Navratna scheme

1. **Eligibility criteria for grant of Navratna Status** : The CPSEs which are Miniratna I, Schedule 'A' and have obtained 'excellent' or 'very good' MOU rating in three of the last five years and have a 'Composite Score' of performance of 60 or above in six identified performance parameters are eligible to be considered for grant of Navratna status. The composite score is calculated on the basis of performance of the concerned CPSEs during the last three years. For calculation of composite score, 6 performance indicators have been identified based on their general applicability to the PSUs. The performance indicators have been chosen so as to capture the performance of PSUs irrespective of their belonging to manufacturing sector or services sector. The six identified performance indicators are:-

S.No.	Performance Indicator	(Maximum Weight)
1.	Net Profit to Networth	25
2.	Manpower Cost to total Cost of Production or Cost of Services	15
3.	PBDIT to Capital employed	15
4.	PBIT to Turnover	15
5.	Earning Per Share	10
6.	Inter Sectoral Performance	20
	Total	**100**

2. The powers 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: -** TheNavratna 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 centres, opening of offices in India and abroad, creating new activity centres, etc.

(iv) **Human Resources Management: -** The Navratna CPSEs have been empowered to create posts upto E-6 level and wind up all posts up to non-Board level Directors and make 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: -

i. Rs. 1000 crore in any one project,

ii. 15% of the net worth of the CPSE in one project,

iii. 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 of/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.

3. **Conditions/guidelines for exercise of delegated Navratna powers**

a) 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.

b) 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.

c) The decisions on such proposals should preferably be unanimous.

d) 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.

e) No financial support or contingent liability on the part of the Government should be involved.

f) 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.

g) 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.

h) 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.

i) 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.

j) 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.

Annexure-5
(Para 2.4.2)

Salient features of Miniratna scheme

1. Eligibility conditions and criteria for grant of Miniratna status are as under.

(i) **Category-I CPSEs** should have made profit in the last three years continuously, the pre-tax profit should have been ₹30 crores or more in at least one of the three years and should have a positive net worth.

(ii) **Category-II CPSEs** should have made profit for the last three years continuously and should have a positive net worth.

(iii) 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.

(iv) These public sector enterprises shall not depend upon budgetary support or Government guarantees.

(v) 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.

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

(i) Capital Expenditure

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

(b) **For CPSEs in category II**: The power to incur capital expenditure on new projects, modernization, purchase of equipment, etc., without Government approval upto ₹ 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 ₹ 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 ₹ 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.

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

Annexure-6

(Para 2.4.3)

List of Miniratna CPSEs

Miniratna Category - I CPSEs

1. Airports Authority of India
2. Antrix Corporation Limited
3. Balmer Lawrie & Co. Limited
4. Bharat Coking Coal Limited
5. Bharat Dynamics Limited
6. BEML Limited
7. Bharat Sanchar Nigam Limited
8. Bridge & Roof Company (India) Limited
9. Central Warehousing Corporation
10. Central Coalfields Limited
11. Chennai Petroleum Corporation Limited
12. Cochin Shipyard Limited
13. Dredging Corporation of India Limited
14. Kamarajar Port Limited
15. Garden Reach Shipbuilders & Engineers Limited
16. Goa Shipyard Limited
17. Hindustan Copper Limited
18. HLL Lifecare Limited
19. Hindustan Newsprint Limited
20. Hindustan Paper Corporation Limited
21. Housing & Urban Development Corporation Limited
22. HSCC (India) Limited
23. India Tourism Development Corporation Limited

24. Indian Rare Earths Limited
25. Indian Railway Catering & Tourism Corporation Limited
26. Indian Renewable Energy Development Agency Limited
27. India Trade Promotion Organization
28. IRCON International Limited
29. KIOCL Limited
30. Mazagaon Dock Limited
31. Mahanadi Coalfields Limited
32. Manganese Ore (India) Limited
33. Mangalore Refinery & Petrochemical Limited
34. Mishra Dhatu Nigam Limited
35. MMTC Limited
36. MSTC Limited
37. National Fertilizers Limited
38. National Small Industries Corporation Limited
39. National Seeds Corporation
40. NHPC Limited
41. Northern Coalfields Limited
42. North Eastern Electric Power Corporation Limited
43. Numaligarh Refinery Limited
44. ONGC Videsh Limited
45. Pawan Hans Helicopters Limited
46. Projects & Development India Limited
47. Railtel Corporation of India Limited
48. Rail Vikas Nigam Limited
49. Rashtriya Chemicals & Fertilizers Limited
50. RITES Limited
51. SJVN Limited

52. Security Printing and Minting Corporation of India Limited

53. South Eastern Coalfields Limited

54. State Trading Corporation of India Limited

55. Telecommunications Consultants India Limited

56. THDC India Limited

57. Western Coalfields Limited

58. WAPCOS Limited

Miniratna Category-II CPSEs

59. Bharat Pumps & Compressors Limited

60. Broadcast Engineering Consultants (I) Limited

61. Central Mine Planning & Design Institute Limited

62. Central Railside Warehouse Company Limited

63. EdCIL (India) Limited

64. Engineering Projects (India) Limited

65. FCI Aravali Gypsum & Minerals India Limited

66. Ferro Scrap Nigam Limited

67. HMT (International) Limited

68. Indian Medicines & Pharmaceuticals Corporation Limited

69. MECON Limited

70. Mineral Exploration Corporation Limited

71. National Film Development Corporation Limited

72. PEC Limited

73. Rajasthan Electronics & Instruments Limited

Annexure-7
(Para 3.1.4)

Salient features of the Guidelines on Corporate Governance for CPSEs

Composition of Board

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 the Board; and the number of Government nominee Directors shall be restricted to maximum of two. In case of listed CPSEs with executive chairmen, the number of non-official Directors shall be at least 50% of Board members. In case of unlisted and listed CPSEs with non-executive chairmen, 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. Relevant clauses have been incorporated in these guidelines to ensure 'independence' of non-official Directors and avoid potential conflict of interest. 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.

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 held in a year and all relevant information is 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.

Audit Committee

3. 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 an independent Director as Chairman. The Audit Committee has been given extensive powers with regard to financial matters of company and is required to meet at least 4 times in a year.

Subsidiary Companies

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

Disclosures

5. 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.

Compliance

6. It has also been mandated in the Guidelines that Annual report of companies should contain a separate section on Corporate Governance 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. The CPSEs are required to submit quarterly compliance/grading report in the prescribed format to their administrative Ministries who will furnish consolidated annual report to DPE.

Annexure-8
(Para 4.4)

MoU Guidelines for the Year 2017-18 and onwards

1. **Memorandum of Understanding (MoU):** MoU is a negotiated agreement and contract between the Administrative Ministry/ Department/ Holding CPSE i.e. majority shareholder and the Management of the Central Public Sector Enterprise (CPSE) on selected parameters having targets decided normally before the start of a new financial year and results evaluated after the end of the year to measure the performance. For carrying out this exercise, CPSEs would provide brief in format at **Appendix-I** and trend analysis in **Appendix-III**.

2. **Purpose of MoU:** The purpose of the MoU is to measure the performance of the management of the CPSEs on key selected parameters against the targets agreed upon so as to improve the critical performance indicators of the organisation.

3. **Scope:** All CPSEs (Holding as well as Subsidiaries) are required to sign MoUs. The Apex/Holding companies will sign MoUs with their administrative Ministries/ Departments, while the Subsidiary companies will sign MoUs with their respective Apex/ Holding companies.

4. **Exemption from MoU:** Following CPSEs may be exempted from MoU system by the Inter-Ministerial Committee (IMC):

   i. CPSEs under liquidation where Liquidator has already been appointed. However administrative ministry would provide the list of such CPSEs to DPE along-with brief write-up.

   ii. CPSE which is not in operation or having no employees or on any other ground on the recommendation of administrative Ministry.

5. **Parameters:** CPSEs work in various sectors under different conditions. In view of this, the following guidelines are laid down:-

5.1 There would be uniform parameters for measuring financial performances such as revenue from operations, operating profit and return on investment (e.g. ratio of PAT/Net-worth). This would be applicable to all CPSEs, except CPSEs which are dependent on government grant or performing functions of distribution of grant etc. e.g. Biotechnology Industry Research Assistance Council (BIRAC). Hence, 3 financial parameters have been prescribed for all CPSEs with total weightage of 50% except for CPSEs like BIRAC. The mandatory parameters are at **Appendix-II (Part-A)**.

5.2 For the remaining 50% weightage, a menu of parameters has been suggested for selection depending on the sector in which the CPSE is operating. Separate Format has been given for Finance Sector at **Appendix-II (Part-C)** and another Format for the remaining operating CPSEs at **Appendix-II (Part-B)**. The parameters most appropriate and relevant for measuring performance shall be suggested by the Pre-Negotiation Committee (PNC) to the Inter-Ministerial Committee (IMC). In all the cases IMC shall take appropriate decision on the suggestions made by PNC.

5.3 For CPSEs under closure/ under construction/ under reconstruction, parameters have not been prescribed leaving it to the PNC to suggest the most appropriate parameters and targets for IMC to take decisions. For such CPSEs, the emphasis should be to suggest parameters and fix targets for starting commercial operations as early as possible. For CPSEs under closure, the targets would be for ensuring time bound closure. Format for such CPSEs is at **Appendix-IV**.

5.4 Definition and explanatory notes on the suggested parameters are given in **Appendix-V**.

6. MoU Ranking:

i. With a view to distinguish 'excellent performance' from 'poor performance', five different performance ratings have been fixed in the MoU, i.e., 'Excellent', 'Very Good', ' Good', ' Fair' and 'Poor'.

ii. Apart from rating of CPSEs, MoU performance of all MoU signing CPSEs, there will be category-wise ranking of CPSEs (Maharatna, Navratna, Miniratna, others) and sector-wise ranking of CPSEs (Mining, Power, Petroleum, Finance, consultancy etc.) only for the purposes of acknowledging where they stand in their respective category/ sector.

7. MoU Targets:

i. Targets fixed should be realistic, growth oriented and aspirational. Generally target for Excellent should not be lower than best achieved in last 5 years and Very Good should not be lower than the expected achievement of the current year (year immediately preceding the year for which targets are being fixed) unless there are specific reasons to fix lower targets and are duly supported by the administrative ministry/ department.

ii. Once MoUs are signed, any revision of targets would not be permissible. MoU targets are unconditional and non-provisional.

8. Pre-negotiation Committee (PNC): The role of the Pre-negotiation Committee (earlier known as Standing Committee on MoU) would be to assist IMC in determining the most appropriate and relevant parameters for measuring improvement in performance and for fixing targets. Meetings of the Pre-negotiation Committee would be held in each case before the meetings of IMC to look at the trends, discuss, negotiate and recommend MoU parameters and targets. The composition of Pre-negotiation Committee would remain the same of erstwhile Standing Committee.

9. **Inter-Ministerial Committee (IMC):** MoU targets would be decided by the IMC. There is no change in the composition of the Committee. Any change in the composition of the committee would be done with the approval of Cabinet Secretary.

10. **Time-lines for submission of MoU:** The draft MoU with all documents/ Annexures should be submitted to administrative Ministry/ Department in respect of all CPSEs and their subsidiaries by **21st November of each year** for the forthcoming year. The draft MoU after the approval of administrative Ministry/ Department should be sent to DPE by **5th December of each year** for the forthcoming year with all documents/Annexures. A copy of draft MoU may also be sent to IMC Members other than DPE. Secretary, DPE may extend these dates if there is delay in issue of guidelines.

11. **Enclosures with Draft MoU:** CPSEs should send the Draft MoU in the relevant format along with all the annexures prescribed and documents mentioned below.

    i. MoU as per App. I, App. II (Part-A and Part-B or Part-C), and App. III (Part-A and Part-B) duly filled in for CPSEs in operation and Annex (I & IV) for CPSEs under closure/ under construction/ reconstruction enclosed with these Guidelines.

    ii. Copy of latest Annual Report.

    iii. Latest quarterly/half-yearly results.

    iv. Copy of the latest Annual Plan and Annual Budget.

    v. Copy of Corporate Plan.

    vi. Minutes of the IMC meeting of previous year.

12. **MoU Signing Process**: MoU based on the parameters, targets and weightage recommended by IMC without any deviation shall be signed between CMD/ MD of CPSE and Secretary of administrative Ministry/ Department in case of holding/ independent CPSEs and between CEO/ MD of subsidiary company and CMD/ MD of holding CPSE in case of subsidiary by 31st March (i.e. before start of financial year in respect of which targets are fixed) or within 21 days from issue of IMC meeting minutes, whichever is later. In case, deviation is detected, IMC minutes would prevail and performance of the CPSE will be downgraded to the next lower rating.

13. **MoU Evaluation:** Evaluation of MoU of the CPSE is done after the end of the year on the basis of actual achievements vis-à-vis the MoU targets. CPSEs (Holding as well as Subsidiaries) are required to submit performance evaluation reports on the basis of audited accounts to Department of Public Enterprises after approval of the Board of CPSE and through the administrative Ministries/ Departments on or before **30th September (in respect of immediately preceding year) or any other date communicated by DPE**. Figures and information in the MoU achievement which are not

verifiable from audited accounts/ annual report would be relied on the basis of certification by way of resolution of the Board given separately for each parameter.

If at the time of evaluation, it is observed that any CPSE may have under-pitch their projected performance for the year concerned to have soft targets fixed. DPE/ IMC may call the CMD of such CPSE to clarify the matter for enabling the IMC to evaluate the performance and assign marks and rating based on justification given by the CMD.

14. MoU Score and Rating: MoU score is an aggregate of score on all parameters with respect to performance vis-à-vis the targets.

14.1 The system of rating of CPSEs on the basis of MoU Aggregate Score is as follows:

Aggregated Score		**Rating**
More than	Equal to or less than	
90	100	Excellent
80	90	Very Good
70	80	Good
50	70	Fair
0	50	Poor

14.2 Score and rating as per para 14.1 would be subject to fulfilling additional eligibility criteria as mentioned below:

a. **Additional Eligibility criteria (1)**: CPSEs have to essentially comply with the following conditions, failing which its MoU rating would be downgraded to next lower rating except CPSEs getting poor rating e.g. CPSEs with 'Excellent rating' would be treated as 'Very Good' and aggregate score shall be read as 90.00 and CPSEs with 'Very Good rating' would be treated as 'Good' and aggregate score shall be read as 80.00 and so on.

i. Compliance of Provisions of The Companies Act, 2013 or the relevant Act under which they have been regulated (To the extent compliances are within the ambit of CPSEs).

ii. In case of listed CPSEs, compliance of provisions of Listing Agreement (To the extent compliances are within the ambit of CPSEs).

iii. Compliance of DPE Guidelines having financial implications.

iv. No adverse observations by CAG on Annual Accounts pointing out misappropriation of funds of any amount or Over/ under statement of profit/ loss (surplus/ deficit)/ assets/ liabilities amounting to 5% of Revenue from Operation.

v. Holding of AGM without seeking extension of time.

vi. Submission of Draft MoU/ MoU evaluation through administrative ministry/ department to DPE by prescribed date.

vii. Signing of MoU as prescribed without deviation from minutes of the IMC meeting.

b. **Additional Eligibility criteria (2):** CPSEs have also to essentially comply with the following failing which its aggregate MoU marks would be reduced by one mark each for non- compliance of each of the conditions and rating would be revised accordingly.

i. Compliance of Public Procurement Policy for Micro and Small Enterprises issued by M/o Micro Small and Medium Enterprises.

ii. Compliance of DPE guidelines on allocation of CSR fund by CPSEs for Swachh Bharat activities.

iii. Compliance of DPE guidelines on Digital India.

iv. Compliance of DPE guidelines on any policy (other than mentioned in ii and iii above), issued from time to time, and prescribed specifically in this regard.

c. Compliance of each of additional eligibility criteria to be confirmed/ certified by Board of Directors by way of resolution.

15. **Approval of Score and Rating**: DPE would carry out the evaluation of the performance based on the MoU received through the administrative ministries/ department. The results of MoU score and rating of CPSEs would be submitted to the IMC. IMC may scrutinize the evaluation and wherever it is felt necessary, modify the score and rating. The score and the ratings of the CPSEs would be submitted to chairman of the HPC for approval. Score and rating would be final after it is approved by the Chairman of the HPC.

Appendix-I

Brief about the CPSE

1.	Name of the CPSE			
2.	Status (Please tick): As per DPE guidelines		Sick/ Incipient Sick / weak/ none	
3.	Reasons of Sickness, if applicable			
4.	Whether registered with BIFR, If yes, details			
5.	Schedule of the CPSE (Please tick)		A/B/C/D/ none	
6.	Purpose for which CPSE has been setup and the main business now			
7.	Number and Name of subsidiary companies along with amount invested and share in its profit during last five years		Separate sheet may be attached, if more than one subsidiary. Information may be separately given in respect of each subsidiary and aggregated (consolidated) also.	
	Year*	**Name of subsidiary**	**Amount invested (Rs.)**	**Share in its profit (Rs.)**
	2011-12			
	2012-13			
	2013-14			
	2014-15			
	2015-16			
8.	Number and Name of Joint Venture companies along with amount invested and share in its profit during last five years		Separate sheet may be attached, if more than one Joint Venture. Information may be separately given in respect of each Joint Venture and aggregated (consolidated) also.	
	Year*	**Name of Joint Venture**	**Amount invested (Rs.)**	**Share in its profit (Rs.)**
	2011-12			
	2012-13			
	2013-14			
	2014-15			
	2015-16			
9.	Details of revival plan approved earlier			

*Note: For each succeeding year of MoU, one more year may be added after the MoU 2017-18 and the first year deleted so that total data available is for the past five years.

Appendix -II

Mandatory parameters

PART A

(Applicable to all CPSEsexcept CPSEs Distributing Government grant)

Sl. No.	Financial Performance Criteria	Unit	Marks	Current Year (Esti-mate)	Best in 5 years	MoU Target for the year ……					%Iprove-ment*
						Excel-lent 100%	V.G. 80%	Good 60%	Fair 40%	Poor 20%	
1	**Turnover** Revenue from Operations	Rs. crore	10								
2	**Operating Profit/Loss**										
	CPSEs with operating profit (Profit/ Surplus before Tax excluding other Income, Extraordinary and Exceptional Items):- Operating profit/ surplus as a percentage of Revenue from operations (net).	%	20								
	CPSEs with operating Loss (Loss/ Deficit not taking into account other Incomes, Extraordinary and Exceptional Items):- Reduction in operating Loss/ Deficit (s) over previous year.	%									
3	**Return on investment:**										
	Profit Earning CPSEs with no accumulated losses: PAT or Surplus / Average Net Worth	%	20								
	Loss making CPSEs or CPSEs having Accumulated losses: Reduction in Total Expenses as a percentage of Total Income as compared to previous year.	%									
	Total (A)		50								

*Improvement would be worked out on very Good Target for MoU year over Current year expected actuals.

Other Parameters

(Part-B)

Applicable to all Operating CPSEs except CPSEs in Finance Sector

Sl. No.	Performance Criteria	Unit	Marks	Current year (Esti-mate)	Best in 5 years	MoU Target for the year ……..					%Im-prove-ment*
						Excel-lent 100%	V.G. 80%	Good 60%	Fair 40%	Poor 20%	
1	Capacity Utilisation/ Production/ Generation/ Transmission, etc.		0-10								
2	New orders Received during the year	Rs. crore	0-10								
3	Exports as a percentage of Revenue from operations	%	0-10								
4	Development or Revenue from new products or product with new features		0-10								
5	Any Production Efficiency parameter		0-10								
6	Completion of milestone of clients orders/ agreements without time overrun	%	0-10								
7	R&D, Innovation, Technology up-gradation parameter		0-10								
8	Increase in Market share	%	0-10								
9	CAPEX (Rs. Crore)		0-10								
10	Percentages of value of CAPEX contracts/ projects running/ completed during the year without time/ cost overrun to total value of CAPEX contracts running/ completed during the year	%	0-10								
11	Inventory of finished goods and work in progress to Revenue from operations (Net)	%	0-10								
12	Reduction in Inventory of more than one year old to Revenue from operations (Net)	%	0-10								
13	Trade receivables (Net) as number of days of Revenue from Operations (gross)	Days	0-10								
14	Reduction in claims against the Company not acknowledged as debt	%	0-10								
15	Return (share of profit/loss) on Investment in JV	%	0-10								
16	Milestones with respect to subsidiary CPSEs not signing MoUs separately		0-10								
17	Parameters pertaining to milestones of Revival		0-10								
18	Any other sector specific result-oriented measurable parameters		0-10								
	Total (B)		50								

*Improvement would be worked out on very Good Target for MoU year over Current year expected actuals.

Other Parameters

Appendix-II (Part-C)

Applicable to all CPSEs Operating in Finance Sector

Sl. No.	Performance Criteria	Unit	Marks	Current year (Estimate)	Best in 5 years	MoU Target for the year ………					%Improvement*
						Excellent 100%	V.G. 80%	Good 60%	Fair 40%	Poor 20%	
1	Loans disbursed/ Total Funds Available	%	10-20								
2	Loans disbursed to Micro Finance Beneficiaries as a % Total Disbursement	%	0-10								
3	Overdue loans/ Total loans (Net)	%	10								
4	NPA/ Total loans (Net)	%	10								
5	Cost of raising funds through bonds as compared to similarly rated CPSEs/ entities		0-10								
6	Contingent liabilities: Reduction in claims against the Company not acknowledged as debt	%	0-5								
7	Return on Investment (share of profit/loss) in Joint Ventures- CPSEs having Joint Ventures	%	0-5								
8	Milestones with respect to subsidiary CPSEs not signing MoUs separately		0-5								
9	Any other sector specific result-oriented measurable parameters		0-10								
10	Total		50								

*Improvement would be worked out on very Good Target for MoU year over Current year expected actuals.

Appendix-III

PART A
TREND Analysis

Sl. No.	Financial Performance Criteria	Unit	Target v/s Actual	2011-12	2012-13	2013-14	2014-15	2015-16	Current Year	
									Actual upto…	Esti-mated
1	Revenue from Operations -Gross	Rs. crore								
	Revenue from Operations -Net		Actual							
			MoU							
2	a. Profit before Tax	Rs. crore								
	b. Other Incomes									
	c. Extraordinary & Exceptional items									
	d. Prior Period Items									
	e. Operating Profit/ Loss (a-b+/-c+/-d)		Actual							
			MoU							
3	a. PAT	Rs. crore								
	b. Net Worth at year end									
	c. Average Net worth									
	d. PAT/ Net Worth	%	Actual							
			MoU							
	e. Paid-up Share Capital									
	f. GoI share									
	g. Reserves and surplus									
4	Total Expenses	Rs. crore								
5	Total Incomes									
6	Total expenses/ Total Incomes	%								
7	Detail of other incomes									
	a. Interest	Rs. crore								
	b. Dividend									
	c. Other Incomes									
	d. Total									
8	a. Cash and Bank Balance and equivalent									
	b. Investment in mutual funds									
	c. Investment in shares other than subsidiary/JVs)									
	d. Total (a+b+c)									
	e. Cash credit/ Over-draft loan/ Short-Term loan									
	f. Balance in Current account									
9	Dividend paid/ declared for the year, excluding Dividend Tax									

Note: Trend would be given for actual figures for preceding five years (audited) and estimates of current year i.e. previous year to the year in respect of which targets are being negotiated.

Appendix-III

(Part-B) - TREND Analysis

Sl. No.	Financial Performance Criteria	Unit	Target v/s Actual	2011-12	2012-13	2013-14	2014-15	2015-16	Current Year	
									Actual upto…	Estimated
1	Installed Capacity in respect of each product									
2	Capacity Utilisation in respect of each product		Actual							
			MoU							
3	Contribution of each product in sales	%								
4	New orders received during the year	Rs. crore	Actual							
			MoU							
5	Exports as a percentage of Revenue from operations	%	Actual							
			MoU							
6	Development or Revenue from new products or product with new features		Actual							
			MoU							
7	Production efficiency parameters		Actual							
			MoU							
8	Completion of milestone of clients orders/ agreements without time overrun	%	Actual							
			MoU							
9	R&D, Innovation, Technology up-gradation parameter		Actual							
			MoU							
10	Market share	%	Actual							
			MoU							
11	CAPEX		Actual							
			MoU							
12	CAPEX contracts/ projects running/ completed without time/ cost overrun to total value of CAPEX	%	Actual							
			MoU							
13	Inventory of finished goods and work in progress	Rs. crore								
14	Inventory of finished goods and work in progress to RO(Net)	%	Actual							
			MoU							
15	Inventory of finished goods of more than one year	Rs. crore	Actual							

Sl. No.	Financial Performance Criteria	Unit	Target v/s Actual	2011-12	2012-13	2013-14	2014-15	2015-16	Current Year	
									Actual upto…	Estimated
16	Inventory of finished goods of more than one year as a percentage of RO	%	Actual							
			MoU							
17	Trade Receivables (net)	Rs. crore	Actual							
			MoU							
18	Trade receivables (Net) as number of days of RO(gross)	Days	Actual							
			MoU							
19	Claims against the Company not acknowledged raised by:									
	Central Government Departments	Rs. crore								
	State Governments/ Local Authorities									
	CPSEs									
	Others									
	Total		Actual							
			MoU							
20	Loans disbursed/ Total Funds Available		Actual							
			MoU							
21	Overdue loans/ Total loans (Net)		Actual							
			MoU							
22	NPA/ Total loans (Net)		Actual							
			MoU							
23	Cost of raising funds as compared to similarly rated CPSEs/ entities		Actual							
			MoU							
24	Return (share of profit/loss) on Investment in Joint Ventures	%	Actual							
			MoU							
25	Any other result-oriented parameters taken for target setting		Actual							
			MoU							

Note: Trend would be given for actual figures for preceding five years (audited) and estimates of current year i.e. previous year to the year in respect of which targets are being negotiated **RO: Revenue from Operations**.

Appendix-IV

Applicable to CPSEs under closure, under construction/re-construction, CPSEs dependent on Government support for meeting the gap between income and expenditure

Sl. No.	Financial Criteria and Performance Criteria	Unit	Marks	Current year (Estimated)	Best in 5 years	MoU Target for the year ……				
						Excellent 100%	V.G. 80%	Good 60%	Fair 40%	Poor 20%
1	Most appropriate parameters and targets would be suggested by PNC for decision by the IMC. For such CPSEs, the emphasis should be to suggest parameters and fix targets for starting commercial operations as early as possible. For CPSEs under closure, the targets would be for ensuring time bound closure.									
2										
3										
4										
	Total		100							

Definitions and Explanatory notes for Targets

The terms used should be same as defined in Schedule III or elsewhere in The Companies Act, 2013, applicable Ind AS/ Accounting Standards unless otherwise specified. All financial figures are to be taken on the basis of Audited Annual Accounts or Annual Report. For section 8 CPSEs preparing Income & Expenditure statement, profit/loss would mean surplus/ deficit. The terms used in App.-II are also explained as under:-

A. Appendix-II (Part-A):

1. **Revenue from Operations:** This would be taken as given in audited Annual Accounts of the CPSE. Target for turnover may be fixed net of excise duty, service tax, GST, etc., whether shown as reduction from Revenue from Operations or under the head Expenditure. As per schedule III, in respect of a company other than finance company revenue from operations consist of: (a) Sale of products; (b) Sale of services; (c) Other operating revenues. In respect of a finance company, revenue from operations shall include revenue from (a) Interest income; and (b) Other income from financial services.

   If the price of product is regulated by statutory authorities/ international transparent mechanism, adjustment in revenue from operations may be allowed for variation in price, i.e., where target is fixed with the condition that adjustment in variation of price/ input cost (e.g., natural gas as a pass through in case of fertilizer) would be allowed due to regulatory regime, etc., the target would be adjusted according to the variation in price at the time of evaluation. For this purpose, first physical target would be decided and then financial target would be arrived at after applying applicable prices so that there is no ambiguity at the time of evaluation.

2. **Operating Profit/ Surplus or Reduction on Operating Loss/ Deficit:** It would mean Profit before Tax/ Surplus excluding other incomes, and not taking into account Extraordinary and Exceptional Items. Section 8 CPSEs, preparing Income and Expenditure Statement in place of Profit and Loss Account, profit/ loss would mean surplus/ deficit. The purpose of this is to capture profit from operations. This would be worked out from figures given in audited Annual Accounts. Extraordinary and Exceptional Items, prior period items may be excluded, if shown separately in audited Annual Accounts.There would be no adjustment in target due to changes in exchange rate, regulatory prices of raw material or finished goods or due to any other reason since target would be fixed as a ratio of operating profit to revenue from operations. With the change in price, there would be change in denominator alongwith change in numerator, hence ratio becomes price neutral to a large extent.

   In case of loss making CPSEs, reduction in loss should be target since target cannot be fixed for loss. This reduction would be in the year under reference with reference to loss for the previous year. For excellent grade target for reduction in loss should be 100% or target for profit in absolute terms.

3. **PAT / Net Worth or Shareholders Fund:** Profit Earning CPSEs with no accumulated losses, ratio would be Profit after Tax (PAT)/ Net Worth. PAT would be taken from audited Annual Accounts. There would be no adjustment due to changes in exchange rate, regulatory prices of raw material or finished goods. Net-worth would have the same meaning as defined in Section 2(57) of the Companies Act, 2013**,** i.e. Aggregate value of the paid up share capital and all reserves created out of profits and securities premium account, after deducting the aggregate value of accumulated losses, deferred expenditure and miscellaneous expenditure not written off, as per the Audited Balance Sheet, but does not include reserves created out of revaluation of assets, write-back of depreciation and amalgamation.This ratio gives return on Investment or shareholders fund. However, if there is extra- ordinary item of substantial value, the same would be considered at the time of evaluation.

   Loss making CPSEs or CPSEs having accumulated losses parameter would be reduction in Total Expenses as a percentage of Total Income as compared to previous year. It may be ensured that target for excellent would be reduction to the extent to bring net loss to at least zero. Similarly for CPSEs with first year of operation, target may be Total Expenses as a percentage of Total Income with excellent target of 100 or less.

B. Appendix-II (Part-B):

1. **Capacity Utilisation:** Capacity utilization used to be a part of Notes to Accounts in case of manufacturing companies till recently. Reference may be made to earlier Annual Accounts while introducing target under this parameter. The purpose of this target is to reflect performance of CPSEs in physical/ quantitative terms which lead to quantification of goods and services. Reference to capacity utilization may be with reference to installed capacity or rated capacity, wherever available. The target may be given either as a percentage of installed capacity or rated capacity or production/ generation/ transmission in absolute terms.

2. **New orders received during the year:** This may be a parameter mainly for CPSEs in Consultancy or Construction Sector. Only new orders received during the year would be taken.

3. **Export as a percentage of Revenue from Operations:** This parameter may be taken in respect of CPSEs having potential for export. The target may be to increase export income. Export would include sale of goods and sale of services.

4. **Development or Revenue from new products or product with new features**: This parameter may be taken where CPSE is engaged in innovative work or has the capacity to develop new products. The intention of this parameter is to encourage development of new products/ features and also to encourage their commercialization.

5. **Production Efficiency parameter:** Any sector specific result oriented measurable parameter leading to physical efficiency in production over previous year may be taken, eg., reduction in specific

energy consumption, reduction in raw material input per unit of production, etc.

6. **Completion of milestones of client's orders/ agreement without time overrun:** This would be a compulsory parameter for CPSEs manufacturing on the basis of orders received from clients and Consultancy organizations where delay leads to levy of penalty. The target for excellent level would be 100%**.**

7. **R&D, innovation, technological upgradation:** Commercialisation of R&D achievement, innovation or technological upgradation leading to efficiency in operations, or reduction in cost may be taken under this heading.

8. **Increase in market share:** This parameter may be taken where transparent system of measuring market share is available.

9. **CAPEX:** Capital Expenditure (CAPEX) means any expenditure incurred towards acquisition/addition of fixed assets i.e. on completion, it would form part of fixed assets. CAPEX may be for expansion, modernization or diversification. This has to be considered on accrual basis and not on cash basis. CAPEX may be decided on the basis of viable projects available for expansion, modernization or diversification, cash and bank balance or parked funds, net-worth, borrowings, etc. CAPEX may be with own funds or by borrowings by leveraging net-worth or may be by way of budgetary support. **CAPEX would be compulsory target for CPSEs having adequate funds or borrowing capacity and have viable business opportunities for expansion, modernization or diversification.** In case of manufacturing CPSEs not taking CAPEX as one of the parameters, justification need to be given duly supported by the administrative Ministry. There may be some projects for expansion, modernisation, diversification having project completion period of more than one year. In such cases, detail of the project e.g. total cost, year-wise amount to be incurred, schedule completion date, amount to be spent, milestone to be achieved during the year, source of funding (own/ borrowed/ budgetary support) etc. need to be given for each project separately.

10. **Percentages of value of CAPEX contracts/ projects running/ completed during the year** without time/ cost overrun to total value of CAPEX contracts running/ completed during the year: This would be a compulsory target for CPSEs which have taken target for CAPEX. This would be worked out in respect of **all ongoing projects for value above ₹150** crore. Information would be given where there was time and/ or cost over-run. CPSE would submit list of all projects which are in progress and /or 10 top projects at the time of target setting. **Time/ cost overrun of projects under monitoring of MoSPI should be captured from OCMS system maintained by them. CPSEs are to ensure that details of all projects of over ₹ 150 crore are entered in OCMS system of MoSPI and/or has to submit details of 10 top projects**. It may be ensured that parameter of monitoring time and cost overrun of projects for numerator and denominator would be referring to same set of projects.

11. **Number of days of Inventory of finished goods and Work-in–progress to Sale of Products (wherever applicable).** This parameter is compulsory to all CPSEs having inventory of finished goods and work in progress of more than 15 days except the CPSEs which have been mandated to have minimum stock by the Government of India/ administrative Ministries/ Departments. The figures would be taken from audited Annual Accounts for inventory of finished goods, work in progress and sale of products. It is to be noted that inventory of raw material, stores and spares, loose tools and others (if any) shall be excluded and goods in transit shall be included under the relevant sub head work in progress or finished good as applicable.

12. **Reduction in inventory of more than one year old as a percentage of Revenue from Operations:** This would be a parameter for trading CPSEs. These CPSEs need to liquidate their stock as early as possible.

13. **Trade Receivables as number of days of Revenue from Operations (Gross):**This parameter is compulsory to all CPSEs having trade receivables of more than 15 days. The figures of trade receivable, revenue from operations would be taken from audited Annual Accounts. Trade receivables would include all trade receivables wherever shown in the Balance Sheet except deferred trade receivables.

14. **Reduction in Claims against the Company not acknowledged as debt**: This would be taken on the basis of figures given in Notes to Accounts to the Balance Sheet under the heading 'Contingent Liabilities'. Evaluation would be done for reduction in claims from the opening balance (closing balance of previous year). **Efforts should be made to bring claims by the CPSEs to Nil and substantial reduction in respect of claims raised by others.** This may be bifurcated into Claims raised by:

    i. Central Government Departments;

    ii. State Government Departments or Local Bodies;

    iii. CPSEs;

    iv. Others

15. **Return (share of profit/ loss) in Joint Ventures:** This would be a compulsory parameter for CPSEs having investment (after written off) in Joint Ventures. Share of profit/ loss would be as per actual profit and loss (PAT) in the Joint Venture Company.

16. **Milestones with respect to subsidiary CPSEs not signing MoU separately:** This would be a compulsory parameter for CPSEs having subsidiaries and not signing MoU. The parameter would depend on the nature of the CPSE.

17. **Parameters pertaining to milestones of Revival:** Where revival/ restructuring of the CPSE has been approved by the competent authority and revival plan is under implementation, in such cases, milestones for revival may be taken as target to ensure timely implementation of revival plan of the CPSE.

18. **Any other sector specific result-oriented measurable parameter**: Under this head, sector specific result-oriented measurable parameter may be taken. Parameters which are process oriented e.g. parameters related to training, HR etc. may not be taken. The minimum weightage of the parameters may be kept as 3 so that it may be given adequate consideration by the CPSE.

C. Appendix-II (Part-C):

1. **Loans disbursed/ total funds available (in %):** This would be worked out on the basis of total loans disbursed during the year and total funds available. Total funds available would include cash and bank balance in the beginning of the year, share capital received during the year, loans raised/ repaid during the year, any funds received from any source for this purpose, sale of assets, repayment/ pre-payment received during the year, and reducing therefrom any investment in assets.

2. **Loans disbursed to Micro Finance Beneficiaries as a percentage of total disbursement:** The intention of this target is to increase the percentage of loans disbursed to Micro Finance Beneficiaries as compared to bigger beneficiaries.

3. **Overdue loans/ total loans (net) (in %):** Figures of loan due but not recovered and total loan (net) would be based on audited accounts.

4. **NPA/ Total loans (net) (in %):** The figures of NPA would be Net NPA taken on the basis of regulatory framework under which CPSE perform as on the last date of the year under reference. Loan assets (net) would be based on Audited balance Sheet.

5. **Cost of raising funds through bonds as compared to similarly rated CPSEs/ entities:** This would be a compulsory parameter for CPSEs raising funds from the market. Target for excellence would be for raising funds at cheaper rates as compared to similarly rated CPSEs/ entities.

6. This would be taken on the basis of figures given in Notes to Accounts to the Balance Sheet under the heading 'Contingent Liabilities'. Evaluation would be done for reduction in claims from the opening balance (closing balance of previous year). **Efforts should be made to bring claims by the CPSEs to Nil and substantial reduction in respect of claims raised by others.** This may be bifurcated into Claims raised by:

   i. Central Government Departments;

   ii. State Government Departments or Local Bodies;

   iii. CPSEs;

   iv. Others

7. **Return (share of profit/ loss) in Joint Ventures:** This would be a compulsory parameter for CPSEs having investment (after written off) in Joint Ventures. Share of profit/ loss would be as per actual profit and loss (PAT) in the Joint Venture Company.

8. **Milestones with respect to subsidiary CPSEs not signing MoU separately:** This would be a compulsory parameter for CPSEs having subsidiaries and not signing MoU. The parameter would depend on the nature of the CPSE.

9. **Any other sector specific result-oriented measurable parameter**:Under this head, sector specific result-oriented measurable parameter may be taken. Parameters which are process oriented e.g. parameters related to training, HR etc. may not be taken. The minimum weightage of the parameters may be kept as 3 so that it may be given adequate consideration by the CPSE.

D Miscellaneous:

In case there is no suitable parameter under Appendix II (Part B or C), weightage may be assigned to Return on Investment.

Annexure-9

(Para 7.2)

SCHEDULE-WISE LIST OF CENTRAL PUBLIC SECTOR ENTERPRISES

As on November, 2016

Schedule - A

1. Airports Authority of India
2. Air India Limited
3. BEML Ltd.
4. Bharat Electronics Ltd.
5. Bharat Heavy Electricals Ltd.
6. Bharat Petroleum Corporation Ltd.
7. Bharat Sanchar Nigam Ltd.
8. Central Warehousing Corporation.
9. Coal India Ltd.
10. Container Corporation of India Ltd.
11. Dedicated Freight Corridor Corporation of India Ltd.
12. Electronics Corporation of India Ltd.
13. Engineers India Ltd.
14. Fertilizers & Chemicals (Travancore) Ltd.
15. Food Corporation of India
16. GAIL (India) Ltd.
17. Heavy Engineering Corporation Ltd.
18. Hindustan Aeronautics Ltd.
19. Hindustan Copper Ltd.
20. Hindustan Paper Corporation Ltd.
21. Hindustan Petroleum Corporation Ltd.
22. HMT Ltd.
23. Housing & Urban Development Corporation Ltd.
24. I T I Ltd.
25. Indian Oil Corporation Ltd.
26. IRCON International Ltd.

27. Indian Railway Finance Corporation Ltd.
28. Konkan Railway Corporation Ltd.
29. Kudremukh Iron Ore Company Ltd.
30. MMTC Ltd.
31. Mahanagar Telephone Nigam Ltd.
32. Mangalore Refinery & Petrochemicals Ltd.
33. Mazagon Dock Shipbuilders Ltd.
34. MECON Ltd.
35. MOIL Limited
36. Mumbai Railway Vikas Corporation Ltd.
37. National Aluminium Company Ltd.
38. National Building Construction Corporation Ltd.
39. National Fertilizers Ltd.
40. NHPC Ltd.
41. National Mineral Development Corporation Ltd.
42. National Textiles Corporation Ltd.
43. NTPC Ltd.
44. Neyveli Lignite Corporation Ltd.
45. North Eastern Electric Power Corporation Ltd.
46. Oil & Natural Gas Corporation Ltd.
47. Oil India Ltd.
48. ONGC Videsh Ltd.
49. Power Finance Corporation
50. Power Grid Corporation of India Ltd.
51. Power System Operation Corporation Limited
52. RITES Ltd.
53. RailTel Corporation of India Ltd.
54. Rail Vikas Nigam Ltd.
55. Rashtriya Chemicals and Fertilizers Ltd.
56. Rashtriya Ispat Nigam Ltd.
57. Rural Electrification Corporation Ltd.
58. Satluj Jal Vidyut Nigam Ltd.
59. Security Printing & Minting Corporation of India Ltd.

60. Shipping Corporation of India Ltd.
61. State Trading Corporation of India Ltd.
62. Steel Authority of India Ltd.
63. Telecommunications Consultants (India) Ltd.
64. THDC India Limited

Schedule - B

1. Andrew Yule & Company Ltd.
2. Balmer Lawrie & Company Ltd.
3. Bharat Coking Coal Ltd.
4. Bharat Dynamics Ltd.
5. Bharat Petro Resources Ltd.
6. Bharat Pumps & Compressors Ltd.
7. Brahmaputa Crackers & Polymers Ltd.
8. Brahmaputra Valley Fertilizer Corporation Ltd.
9. Biotechnology Industry Research Assistance Council
10. Braithwaite & Company Ltd.
11. Bridge & Roof Company (India) Ltd.
12. British India Corporation Ltd.
13. Burn Standard Company Ltd.
14. Cement Corporation of India Ltd.
15. Central Coalfields Ltd.
16. Central Electronics Ltd.
17. Central Mine Planning & Design Institute Ltd.
18. Chennai Petroleum Corporation Ltd.
19. Cochin Shipyard Ltd.
20. Cotton Corporation of India Ltd.
21. Dredging Corporation of India Ltd.
22. Eastern Coalfields Ltd.
23. Engineering Projects (India) Ltd.
24. Kamrajar Port Ltd.
25. Fertilizer Corporation of India Ltd.
26. Garden Reach Shipbuilders & Engineers Ltd.
27. Goa Shipyard Ltd.

28. Handicrafts & Handlooms Export Corporation Ltd.
29. Hindustan Cables Ltd.
30. Hindustan Fertilizer Corporation Ltd.
31. HLL Lifecare Ltd.
32. Hindustan Newsprints Ltd.
33. Hindustan Organic Chemicals Ltd.
34. Hindustan Shipyard Ltd.
35. Hindustan Steelworks Construction Company Ltd.
36. Hindustan Vegetable Oils Corporation Ltd.
37. HMT (International) Ltd.
38. HMT Machine Tools Ltd.
39. HMT Watches Ltd.
40. India Tourism Development Corporation Ltd.
41. India Trade Promotion Organization
42. Indian Drugs & Pharmaceuticals Ltd.
43. Indian Railway Catering & Tourism Corporation Ltd.
44. Indian Rare Earths Ltd.
45. Indian Renewable Energy Development Agency Ltd.
46. Instrumentation Ltd.
47. M S T C Ltd. .
48. Madras Fertilizers Ltd.
49. Mahanadi Coalfields Ltd.
50. Mineral Exploration Corporation Ltd.
51. Mishra Dhatu Nigam Ltd.
52. National Handloom Development Corporation Ltd.
53. National Jute Manufacturers Corporation Ltd.
54. National Projects Construction Corporation Ltd.
55. National Seeds Corporation Ltd.
56. National Small Industries Corporation Ltd.
57. Northern Coalfields Ltd.
58. Numaligarh Refinery Ltd.
59. Orissa Mineral Development Company Ltd.
60. PEC Ltd.

61. Pawan Hans Helicopters Ltd.
62. Projects & Development India Ltd.
63. Scooters India Ltd.
64. South Eastern Coalfields Ltd.
65. Tyre Corporation of India Ltd.
66. Uranium Corporation of India Ltd.
67. W A P C O S Ltd.
68. Western Coalfields Ltd.

Schedule - C

1. Andaman & Nicobar Islands Forest & Plantation Development Corporation Ltd.
2. Artificial Limbs Mfg. Corporation of India
3. BBJ Construction Ltd.
4. Bengal Chemicals & Pharmaceuticals Ltd.
5. BHEL Electric Machines Ltd.
6. Bharat Wagon & Engineering Company Ltd.
7. Bisra Stone Lime Company 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. Certification Engineers International Ltd.
13. Delhi Police Housing Corporation
14. Educational Consultants (India) Ltd.
15. FCI Aravali Gypsum & Minerals (India) Ltd.
16. Ferro Scrap Nigam Ltd.
17. Hindustan Antibiotics Ltd.
18. Hindustan Insecticides Ltd.
19. Hindustan Photo Films Manufacturing Company Ltd.
20. Hindustan Prefab Ltd.
21. Hindustan Salts Ltd.
22. HMT Bearings Ltd.
23. HMT Chinar Watches Ltd.
24. Hooghly Dock and Port Engineers Ltd.

25. HSCC (India) Ltd.
26. Hotel Corporation of India Ltd.
27. Jute Corporation of India Ltd.
28. Karnataka Antibiotics & Pharmaceuticals Ltd
29. Nagaland Pulp & Paper Company Ltd.
30. National Backward Classes Finance & Development Corporation.
31. National Film Development Corporation Ltd.
32. National Handicapped Finance & Development Corporation.
33. National Minorities Development & Finance Corporation
34. National Research Development Corporation of India.
35. National Safai Karamcharis Finance & Development Corporation.
36. National SC Finance & Development Corporation
37. National ST Finance & Development Corporation
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. Triveni Structurals Ltd.
45. Tungabhadra Steel Products Ltd.

Schedule - D

1. Hindustan Fluorocarbons Limited
2. Indian Medicines Pharmaceutical Corporation Ltd.
3. Orissa Drugs & Chemicals Ltd.
4. Rajasthan Drugs & Pharmaceuticals Ltd.

Annexure-10

(Para 8.3.2)

Guidelines for "Streamlining the mechanism for revival and restructuring of sick/ incipient sick and weak Central Public Sector Enterprises: General principles and mechanism of restructuring"

These guidelines are laid down for streamlining the mechanism for restructuring / revival or closure of sick or incipient sick CPSEs and replace the multiple process options available for the same purpose.

2. Multiple mechanisms for restructuring / revival of sick and incipient sick CPSEs exist. Sick industrial companies as defined in Sick Industrial Companies Act 1985 are referred to Board for Industrial Financial Reconstruction (BIFR), which suggest a restructuring plan and seek sacrifices & commitments from promoters and stake holders. Board for Reconstruction of Public Sector Enterprises (BRPSE) has been created to advise the government through the resolution No.16(25)2004-Fin. dated 6th December, 2004 to consider the restructuring or revival plan of CPSEs prepared by a CPSE itself under the guidance of its administrative ministry. The administrative ministry may, in the public interest, prepare a revival or restructuring plan for a CPSE which may involve comprehensive restructuring, disinvestment, closure etc of the sick and incipient sick CPSE and take it directly to the competent authority for appropriate decision.

3. Primary responsibility for supervision of a CPSE for its efficient functioning lies in the administrative ministry and final view for restructuring and revival of sick and incipient sick CPSEs or taking appropriate measures for CPSEs showing early indications of weakness has to be taken by them with approval of the competent authority after inter - ministerial consultation and concurrence of the Ministry of Finance through PIB/ EFC mechanism as may be required. It is in the public interest to make this process, time bound, comprehensive, performance driven and efficient so that such decisions are taken and implemented in a time bound manner to minimise further losses. Hence there is a need to lay down broad principles and guidelines to be followed in such cases.

4. Guidelines:

4.1 The Companies Act, 2013 Chapter XIX refers to Revival and Rehabilitation of Sick Companies and Chapter XX to Winding up of the Companies. The decision whether a company has become a sick company would be taken by the Tribunal (National Company Law Tribunal). The Administrative Ministries/ Departments have to keep a track of the debts of CPSEs and take advance action to avoid a situation where the CPSEs may be considered fit to be declared sick entity as per provisions of the Companies Act, 2013.

4.2 The administrative ministry shall, at the end of the each financial year, analyse the performance of its CPSEs to classify them by a specific order in the following categories within 6 months of the closure of the financial year or within one month from finalisation of Annual Accounts, whichever is earlier.

4.2.1 **Sick CPSEs:** A CPSE shall be considered sick if it meets one of the following criteria:

a. If it is declared sick as per the provisions of the Companies Act, 2013.

b. If its net worth is negative.

4.2.2 **Incipient sick CPSEs**: A CPSE would be considered incipient sick if it meets one of the following criteria:

a. If its net worth is less than 50% of its paid-up capital in any financial year.

b. If it had incurred losses consecutively for three years.

4.2.3 **Weak CPSEs**: A CPSE would be considered weak or sub optimally performing if it meets one of the following criteria:

a. If its turnover or its operational profit has declined by more than an average of 10% in the last 3 years.

b. If its profit before tax is less than income from the other sources.

c. If its trade receivable and inventories are more than 50% of net worth of the CPSE.

d. If the claims against the company, not acknowledged as debts, are more than its net worth.

e. Any other criteria as may be prescribed to quantify early signs of weakness in the performance of the CPSEs by the government.

4.3 In all the reference to Net worth, it would have the same meaning as defined under Section 2 (57) of the Companies Act, 2013.

4.4 The administrative ministry will take the following action:

(a) The administrative ministry will put weak CPSEs under **"observation and intensive review"** to arrest the early signs of weakness in such CPSEs. It may include nomination of independent expert members on the board, quarterly intensive review or special reviews for taking corrective business, operational and financial measures at the board level, fixing the responsibility for declining performance or non-performance or any other corrective step as may be appropriate and necessary by the administrative ministry or department.

(b) The administrative ministry shall initiate the process for preparation of restructuring/ revival plan, which may include disinvestment or privatisation or closure options, for sick/ incipient sick CPSEs based on the classification as given above within 6 months from the closure of the financial year or within one month from finalisation of Annual Accounts, whichever is earlier.

(c) Restructuring and revival plan for the sick and incipient sick CPSEs shall be prepared within nine months of the closure of the financial year.

(d) External expert agency which has experience and expertise of the business environment, operational issues, technology option and financial viability of the sector in which such CPSE is functioning may be engaged by the government and shall function under the supervision of the administrative ministry for preparation of the future road map.

4.5 Restructuring and revival plan with the help of the agency and other experts, as may be required, shall be prepared by the administrative ministry/department and shall specifically include:

4.5.1 Perspective of Relevance and Functioning:

a) Background and purpose of the formation of the CPSE.

b) Economic and regulatory environment along with their impact on the growth of the company

c) Liberalisation and its impact on its business operation

d) Ability of the CPSE in adapting new business strategies, technology to regain and sustain its economic viability.

e) Efforts and special interventions made for its revival or avert early sickness and its impact on the health of the CPSE.

4.5.2 Strategic Plan for Restructuring/Revival:

(a) The concerned administrative ministry/department should clearly bring out the national and strategic interest served by the CPSEs in the light of the sectoral business environment, domestic as well as global.

(b) Prevailing market need to be analysed for supply of goods or services through other providers in the private sector, domestic or from other countries, to bring out if there is a specific role of the CPSE in this segment to serve the national strategic or defence interests.

(c) Keeping the business environment other relevant facts in mind, a CPSE may be categorised as **a high priority** or **priority** CPSE to meet the strategic interest of the country. For this purpose, a report of the 14th Finance Commission may also be referred to.

(d) All other sick CPSEs which are not required to serve the strategic national/defence interests should be categorised as **non priority** CPSEs.

4.5.3 Business Plan for Restructuring/ Revival Plan:

A. High Priority or Priority CPSE.

a) For high priority CPSEs, the business plan has to be made keeping in mind the strategic national interest and economically viable business opportunities.

b) For strategic business model, requirement for Government policy convergence should be clearly spelt out to meet the economic viability of such enterprises. Also, viability gap funding, if required for such strategic operations have to be brought out.

c) For high priority sector, the business plan may be drawn seeking specific financial and non financial support from the Government. It may include strategic disinvestments or joint ventures etc.

B. Non-priority CPSE.

a) For CPSEs in the non-priority category, the business plan is to be made on business and economic viability model to attain self sufficiency in short or medium term.

b) Business plan should be based on performance efficiency bench marks, viable scale of economic operation and road map for technology adoption/ upgradation to support business strategy for viability and sustainability over period of time.

c) Business reorganisation through merger, demerger or closure of various business activities.

d) It should support desirable market share to be sustainable in the medium and long term.

e) All the presumptions underlying the business plan with respect to their business environment, economic viability and mechanism of funding should be market validated and credibly established.

4.5.4 Operational Restructuring:

a) Keeping in mind the business plan, the required human resource needs are to be assessed and rationalised.

b) It may be seen whether sectoral efficiency benchmarks as are existing globally/ domestically can be achieved by the CPSE in short or medium term through implementation of this plan in shortest period of time.

c) Options for adopting requisite technology and up-gradation of the same as per requirement through various management options including JV, disinvestment or privatisation to be factored into the operational restructuring plan.

d) The options of merger or de-merger of various operations in line with the proposed business plan to ensure continuous procurement of new technology and its up-gradation.

4.5.5 Financial Restructuring Plan:

a) For high priority and priority CPSEs, a comprehensive financial restructuring plan should be drawn comprising various methods of financing with minimum and unavoidable viability gap funding in the strategic national/defence interest. Limited private investment through disinvestment within permissible limits may also be considered under financial plan.

b) In case of other (non priority) CPSEs financing plan should be based on economic viability of operations. Various options of leveraging private and/or institutional funding may be explored.

c) Details of projected profitability/cash flow for the next five years. These presumptions should be pragmatic and market validated.

4.6 Mechanism and Methodology to be followed for restructuring/ revival/closing of sick CPSEs

(a) The concerned administrative ministry/ department would classify the CPSE as sick CPSE, incipient sick or with early indications of weakness as per para 4.2 above. The concerned Administrative Ministry/ Department will also inform DPE about the status of CPSE accordingly.

(b) The concerned administrative ministry/ department will be responsible for formulating revival/ restructuring/ closure road map for sick CPSEs as per the principles outlined above. This would be done within three months from the issue of these guidelines in case of existing sick CPSEs and within nine months from the end of the financial year for a CPSE becoming sick subsequently.

(c) Administrative Ministry/ Department may engage credible expert organisation for drawing of business, operational and financial restructuring plans. Such expert entity, if appointed, should function under the direct control of administrative ministry/ department so as to draw a professionally credible, implementable and realistic restructuring plan. Suitable mechanism for market validation should be incorporated during the Request for Proposal (RFP) stage of engagement of expert(s)/ expert organisation(s) and the market validation should be cross checked and confirmed by the administrative ministry/department as well.

(d) Implementation plan with specified time line for various stages should be objective, quantifiable and supported with the monitoring mechanism.

Annexure-11
(Para 8.5.1)

Subject: Guidelines for time bound closure of Sick/ Loss Making Central Public Sector Enterprises (CPSEs) and disposal of Movable and Immovable assets.

The Government has been concerned about the inordinate delays and extended time taken for closing down Sick/ Loss Making Central Public Sector Enterprises (CPSEs) where decisions for closure were taken long time back. For such CPSEs, Government has been providing budgetary support straining its scarce resources. The Government would now like to ensure that the decisions taken by the competent authority are implemented by ensuring payment of financial compensation, discharging of liabilities, legal responsibilities, disposal/ monetisation of lands and moveable assets in a time bound manner.

To expeditiously complete the various processes and procedures for closure of CPSEs and lay down responsibilities of the administrative ministries/ departments/ CPSEs, including the support required to be extended by nodal departments/ organisations, guidelines for time bound closure of Sick/ Loss Making CPSEs and disposal of movable and immovable assets are laid down hereunder:

1. **Applicability:** These guidelines shall apply to all sick/ loss making CPSEs, where –

   (i) approval for closure has been obtained by administrative Ministry/ Department from the CCEA/ Cabinet; or

   (ii) in-principle approval for closure has been given by the CCEA/ Cabinet on the proposal/ recommendation of the administrative Ministry/ Department/ NITI Aayog.

   (iii) the administrative Ministry/ Department has decided for the closure of the CPSE and the process for obtaining the approval of the competent authority is underway.

Note: These guidelines shall not apply to CPSEs under liquidation where liquidator has been appointed. However, the Administrative Ministry/ Department of such CPSE(s) may take necessary action in respect of various activities relating to closure of the CPSE and disposal of its movable/immovable assets in consultation with NITI Aayog and in accordance with the legal requirements of the liquidation process.

2. Definitions

(i) **Zero Date** shall be the date of issue of minutes conveying the decision of Cabinet/ CCEA for closure. In respect of those CPSEs where approval for closure has already been obtained, the **zero date** shall be the date of issue of these guidelines.

(ii) **Preparatory Date** shall be the date of issue of minutes conveying the decision of in-principle approval of Cabinet/ CCEA for closure or date of decision for closure by the administrative Ministry/ Department, as the case may be.

(iii) **CPSE:** The definition of 'CPSE' given by DIPAM vide O.M. No. 5/2/2016-Policy dated 27.5.2016 regarding Capital Restructuring of Central Public Sector Enterprises (CPSEs) shall apply for the purpose of these guidelines,which is reproduced below:

"all corporate bodies where Government of India and/or Government controlled one or more body corporate have controlling interest.

(i) Body corporate shall include body incorporated under the provisions of the Companies Act, 1956 or the Companies Act, 2013, or under any other Act as may be applicable except Limited Liability Partnership.

(ii) Controlling interest means control over the composition of the Board of Directors; or exercise or control over more than one-half of the total share capital or able to exercise more than 50 per cent voting rights in the meeting of the members, Board of Directors or any other similar executive structure, e.g., Governing Body, Executive Committee, etc.

A body corporate in which Government of India and/ or CPSEs, including their subsidiaries, control the composition of the Board of Directors; or exercise or control more than one-half of the total share capital shall be deemed to be a body controlled by Government of India."

Note: Banks and Insurance companies will not be covered in the above definition of CPSE for the purposes of these guidelines.

(iv) **Land Management Agency (LMA)** is the CPSE, such as NBCC/EPIL, which is nominated by the administrative Ministry/ Department/ the Board of the CPSE under closure to manage, maintain and assist in disposal of land.

(v) **Auctioning Agency (AA)** is the CPSE, such as MSTC, which is nominated by the administrative Ministry/ Department/ the Board of the CPSE under closure to dispose of movable and immovable assets through e-auction in a transparent manner.

3. Preparatory Activities before Decision on Closure

The CPSEs mentioned in para 1 (ii) and (iii) of the guidelines shall take advance preparatory action for such CPSEs which shall include the following:

3.1 **Estimation of Statutory dues:** The CPSE will estimate the statutory dues/ liabilities towards revenues, taxes, cesses and rates due to Central Government or State Government or to local authorities under the supervision of its administrative Ministry/ Department.

3.2 Estimation of dues of employees:

(i) Preparation of VRS/ VSS package at 2007 notional pay scale, irrespective of the pay scale in which the CPSE is operating for release of the employees. Estimation of financial implications for such a package.

(ii) Estimation of funds required for payment of wages/salaries and statutory dues in respect of the employees till the time the employees are released by way of opting for VRS/ VSS/ retrenched or settled.

(iii) Total Estimated budgetary support for (i) and (ii) above with the phasing of requirement of funds and time lines.

3.3 Estimation of liabilities towards Secured Creditors etc.

(i) Secured creditors are those in whose favour a charge has been created on the assets of the Company and filed/ registered with the Registrar of Companies.

(ii) Administrative Ministry/ Department will negotiate with the secured creditors to settle their dues at the minimum value as One Time Settlement (OTS). Administrative Ministry/Department may critically examine the best possible settlement including schedule of payment, waiver of interest and penalties with secured creditors so that it requires minimum budgetary support.

(iii) Processing of offers from secured creditors and statutory dues for settling them at minimum value and estimation of the total amount so determined to be paid back to the secured creditors.

(iv) Modalities of the settlement of liabilities covered by the Government guarantees will be settled in consultation with the Ministry of Finance.

3.4 Estimation of dues payable to the Central Government: The dues payable to the Central Government availed in the form of loans extended from time to time, segregated into the principal outstanding amount and the interest thereon shall be worked out.

3.5 Estimation of other liabilities: Administrative Ministry/ Department will get the estimates of all other liabilities required to be paid including unsecured creditors.

3.6 Estimation of Movable assets:

(i) Updating details of movable assets including plant(s) & machineries. The inventory of all moveable assets should be got verified/ certified from an independent third party e.g. a firm of Chartered Accountants;

(ii) Book Value of the movable assets as well as the current estimated market value and estimation of realisable value from their sale by the CPSE/ administrative Ministry/ Department.

(iii) Where movable assets are on lease negotiation with the lessor whether he would take it back at market price or would like it to be auctioned.

(iv) Ascertaining whether movable assets are to be utilised by holding CPSE, if any or by the administrative Ministry/ Department.

(v) Ascertaining whether factory/ office building (superstructure) is required to be disposed off alongwith movable assets or alongwith land.

(vi) Ascertaining of market value of brand name, goodwill, trademarks, etc. of the CPSE under closure.

3.7 Estimation of receivables including trade receivables, securities, loans and advances, etc.

3.8 Estimation of Budgetary Support Required for closure

(i) Total Estimated funds required for financing the closure of the Company which would include liabilities at para 3.1 to 3.5 above, along with time-lines/ phasing of release of funds from the Central Government.

(ii) CPSE's own resources, including amount to be realised from sale of assets, which may be available for settlement of liabilities during the course of closure shall be taken into account for working out the requirement for budgetary support, with phasing of funds and time lines.

3.9 Immovable assets including buildings:

(i) Updating of land records with geo-mapping and details such as title deed, lease hold land, free hold land, conditions of lease, remaining period of lease, current land use, FAR and other rights relating to use of land, whether land compensation (partly/fully) has been paid by the CPSEs/ Central Government at the time of acquisition, amount of compensation paid, status of possession of land, encroachments, if any, etc.

(ii) Obtaining the concurrence/ agreement of the State Government in respect of utilisation/ settlement of lease hold land of the CPSE intended to be closed for further use for similar or identical activities as per local laws governing land use by other Central Government/ State Government/ Departments or PSEs/ organisations for public purpose/ expansion of economic activities, etc, if options possible.

(iii) Valuation of land at the prevalent circle rates or current acquisition cost (excluding the R&R expenses).

(iv) Ascertaining whether immovable assets are to be utilised by holding CPSE, if any or by the administrative Ministry/ Department failing which appointment of Land Management Agency (LMA) and sharing information with it.

4. CPSEs under Board for Industrial and Financial Reconstruction (BIFR)

NITI Aayog shall advise the administrative Ministry/ Department in respect of the CPSEs which are sick and are registered under BIFR or proceedings are pending before the AIIFR regarding the two alternative courses of action, namely, liquidation under BIFR or taking the CPSE out of BIFR through appropriate financial restructuring, after analysing the assets and liabilities of the company. If the NITI Aayog suggests taking the CPSE out of BIFR purview, the concerned administrative Ministry/ Department shall submit the appropriate financial restructuring/ support proposal to the competent authority to the extent required to make its net-worth positive so that the sick CPSE is taken out of the purview of BIFR.

5. Responsibility of the Board of Directors of CPSEs for Closure

In respect of CPSEs where decision for closure has been taken or in-principle approval for closure has been given by Cabinet/ CCEA, the Directors of the CPSE should provide all support and material required in formulating the closure proposal and its implementation, failing which the administrative Ministry/ Department shall take a view on removing the Functional Directors including the CMD and give additional charge of the CMD to the Joint Secretary concerned and charge of other functional Directors to other senior officers in the administrative Ministry/ Department. This fact of removal of the Functional Directors including the CMD will be communicated to the PESB.

6. Role of the administrative Ministry after in-principle Decision for Closure

In respect of the CPSEs mentioned in para 1 (ii) and (iii) of the guidelines, the concerned administrative Ministry/ Department will be responsible for formulating the detailed proposal for closure of the CPSE and place the same before the Cabinet/ CCEA within a period of three months. It shall be ensured by the administrative Ministry/ Department that all relevant details along with their financial implications, details of liabilities, movable and immovable assets to be offered for sale are covered in the approval para of the proposal for closure of the CPSE.

7. Role of the Administrative Ministry/ Department after Decision for Closure

After obtaining decision of the competent authority on closure of the CPSE, the administrative Ministry/ Department shall take up the following processes and activities:-

7.1 **Request for Budgetary Support:** Request budgetary support from the Department of Expenditure, Ministry of Finance, within 15 days from the Zero date. For this, a mechanism for time bound release of funds required to implement all aspects of closure of CPSEs may be put in place by the Department of Expenditure, Ministry of Finance so that funds are released within one month of receiving the request, except where Parliamentary approval for Supplementary Demand for Grants is required.

7.2 Settlement of Liabilities:

(i) Instruct the CPSE for taking necessary action for bringing the CPSE out of BIFR/AIIFR, if required;

(ii) Instruct the CPSE for payment of statutory dues/ liabilities towards revenues, taxes, cesses and rates due to Central Government or State Government or to the local authorities;

(iii) Instruct the CPSE to give a general notice within 05 days from the Zero date to employees and other stakeholders intimating about intended closure. Intimate/ apply to the Ministry of Labour and Employment in respect of closure, as may be applicable under Industrial Disputes Act, 1947. Implement VRS package with a timeframe/ final cut-off date and settle wages/salaries of employees and statutory dues within 3 months from the Zero Date or within such extended time required due to the need to seek Parliamentary approval for additional funds.

(iv) Take action for completing the legal formalities for retrenchment of employees not opting for VRS within the stipulated period of time by payment of compensation as per law.

(v) Settlement of secured creditors. The settlement should be completed within 3 months from the Zero Date unless there are financing constraints beyond the control of the administrative Ministry/ Department.

(vi) Settlement of other liabilities should be the next priority.

7.3 Disposal of Assets

In case the CPSE is a subsidiary of another CPSE and if the assets are required by such holding company, the same may be transferred to the holding company at book value, in consultation with the State Government, wherever so required within 30 days from zero date. Similarly, if assets are required by the administrative Ministry/ Department for its own use, the same may be transferred to it at book value within 30 days from zero date. In respect of remaining assets, guidelines as mentioned in subsequent paras, i.e., 8, 9 and 10 shall apply.

8. Disposal of Movable Assets

(i) The CPSE shall carry out the processes of disposal of movable assets including plant & machinery in a transparent manner immediately after 'Preparatory Date' under the supervision of Administrative Ministry/ Department.

(ii) The leasehold assets may be transferred to the lessor at his option.

(iii) The CPSE in consultation with the administrative ministry/ department, if necessarily required, may dispose of factory building structure along with disposal of movable assets.

(iv) If there is a need for auction of movable assets including brand name, goodwill, trade marks, etc., Auctioning Agency shall be nominated by the Administrative Ministry/ Department/ CPSE for completing the job within three months from the zero date.

(v) If the CPSE is not able to dispose off movable assets within the stipulated time-frame, it should be brought to notice of the Administrative Ministry/ Department and Niti Aayog by the CPSE. Thereafter, the Administrative Ministry/ Department shall redress the matter within 15 days and shall take a decision on settlement of the disposal of movable assets.

9. Disposal of Immovable Assets: Land & Building

Considering that land of the CPSE may be lease-hold or free-hold or a conditional Land Grant with restricted rights of occupation and use, the CPSE shall carry out the following activities after examining issues mentioned in para 3.8 above, under close supervision and guidance of the administrative Ministry/ Department and in consultation with State Government(s)/ lessor, wherever required.

9.1 Disposal of Lease Hold Land

(i) **Leasehold land with conditions:** Lease hold land with specific condition that it will be given back to the State in case the CPSE ceases to exist or non-utilisation of land for the purpose for which it had been allotted etc. or where there is no provision of sale in the lease agreement, such land may be returned to the State Government on receipt of financial compensation determined as per the terms and conditions of the Lease or Land Grant Agreement. In such a case, financial compensation, if any, paid by the CPSE/ Central government at the time of acquisition or the higher amount shall be re-paid/ paid by the State government while taking back the land.

(ii) **Other Lease hold land:** In case the terms and conditions of the Lease do not contain any restrictive conditions regarding the use/ disposal of such land, and/or do not confer any pre-emptive rights in favour of the State/lesser in the event of closure of the CPSE, the subject land may be treated akin to free-hold land and dealt with in the same manner as prescribed for the free-hold land, subject to any specific terms and conditions of the Lease.

9.2 Disposal of Free Hold Land: Free hold land is generally allotted to the CPSE by the State government after acquisition or purchased by CPSE directly. There may or may not be conditions of land use attached to such land. In case of freehold land with conditions of land use attached, best possible use of such land may be worked out in the light of the original land-use of the land or the current land-use of the area as per the master plan of the locality, whichever is better. The following process shall be followed for settlement of the free-hold land of the CPSEs:

(i) CPSE/ administrative Ministry/ Department shall first invite the offers for purchase of land through LMA and determine the demand for such land. Land shall be allotted, subject to the approval of the Cabinet/ CCEA as required, in order of priority mentioned below at the current circle rates applicable at the time of offer and/ or the prevalent acquisition cost (excluding the R & R Costs). In case any the organisation is willing to take the entire land (without any division thereof), the same shall be given priority over others.

Order of priority:

(a) Central Government Department(s)

(b) Central Government Bodies/CPSEs

(c) State Departments

(d) State Government Bodies/ State PSEs/ State Authorities

(ii) In case, above category of organisations are interested in taking part of the land, it would require preparation of a Development Plan of the area of land, plotting and provision of internal infrastructure works/ facilities, which shall be prepared by LMA and presented to the CPSE/ administrative Ministry/ Department. The administrative Ministry/ Department will consider the land development plan, approve it including the scheme of financing and may entrust LMA or any other suitable agency(ies) to execute it to ensure allotment/ settlement of such divided land parcels as per the priority given in the guidelines.

(iii) In case no offer is received within 6 months from zero date, the disposal of immovable assets is to be done in a transparent process through the auctioning agency to any entity with the approval of the competent authority. Land would be sold as per the approved land use, FAR and other applicable conditions. However, before the bid is finalised, if any offer is received from agencies mentioned in para 9.2(i), the same will be given overriding priority.

(iv) In case of non-feasibility of above options, land/ property may be utilised for public purposes including affordable housing, any flagship programme of Government of India as may be permissible in consultation with Niti Aayog and approval of the Cabinet/ CCEA, as required.

(v) Wherever the Administrative Ministry/ Department faces any difficulty in disposal of land, it shall consult the NITI Aayog and take action as per the advice tendered in this behalf.

9.3 Negotiations with the State Government

The Secretary of the Department/ Ministry concerned shall lead the interactions with the State Government regarding the utilisation/ alternative utilisation of land, return of land to the State Government and conclude these deliberations within a period of two months from Zero Date.

10. Role of Land Management Agency

The administrative Ministry/ Department and the Board of the CPSE under closure may entrust the immovable assets as per para 3.8 to the nominated Land Management Agency (LMA), which shall:

(i) Manage, maintain and, if required, engage security agency for the watch and ward of the assets on contract basis for the CPSE against payment. The LMA shall ensure that the land is not encroached, movable assets are not stolen and premises is secured. The LMA may engage a few key employees dealing with assets of the CPSE on contract basis to obtain, manage, maintain and update the records of lands and other immovable assets of the CPSEs on behalf of the CPSE.

(ii) Collect and validate the information regarding the land, e.g. title deed, lease hold or free hold, conditions of lease, remaining period of lease, whether land compensation was paid by the CPSE/ Central Government at the time of acquisition, status of possession of land, encroachment, if any, and its verification on the ground.

(iii) Examine the current land use, FAR and the land use as per the local laws applicable in that area to determine the suitability of the land for industrial, manufacturing or some other purposes.

(iv) Carry out valuation of land on the applicable circle rates, acquisition cost (excluding the R&R expenses) and any other information necessary for use/ valuation of land/ building including limitations arising out of nature of title, master plan and State Government restrictions, if any.

(v) The Land Management Agency shall compile all such information and publish the same on its website (Land management portal) at the earliest, but not later than three months from preparatory date, in the public domain for the information of all parties that may be interested in taking such land.

(vi) LMA shall also invite Expressions of Interest (EoI) from all Central/ State government(s)/ their agencies and others interested in taking the entire or part of the land.

(vii) If the LMA comes to the conclusion from the EoIs received that disposal of immovable assets as per priorities set out in the Guidelines would require allotment of the asset or a part thereof, it should bring the matter to the notice of the Administrative Ministry/ Department, which shall make the allotment with the approval of the Cabinet/CCEA, as required. The LMA shall suggest the CPSE/ Administrative Ministry/ Department a plan of allotment/ settlement of the whole land or a part thereof.

(viii) If the LMA comes to a conclusion that disposal of land would require division of land into parcels and development of such land parcels to facilitate their monetisation, the LMA shall prepare and place before the Administrative Ministry/ Department a Land Development Plan along with its scheme of financing for consideration and further approval.

(ix) The LMA shall submit monthly report updating the status of disposal of immovable property to the administrative Ministry/ Department as per their approvals, with a copy to the NITI Aayog.

(x) The LMA will be entitled to land management fee which would be 0.5% of the value realized from disposal of land, subject to a maximum of Rupees One crore.

(xi) In cases where the LMA is required to support watch and ward of the asset under disposal, such expenditure shall be reimbursed by the administrative Ministry/Department on the basis of actuals every month. LMA would obtain prior approval of the administrative Ministry/ Department before incurring any expenditure which require reimbursement.

(xii) LMA may be required to engage the State Government Public Sector Enterprises on appropriate terms and conditions for discharge of some of its responsibilities.

11. Role of Auctioning Agency

The auctioning agency shall dispose the assets of the Company by e-auction through a transparent process. The Auctioning Agency would be paid 1% of amount realized from auction subject to maximum of ₹ 25.00 lakh per auction.

12. Role of Niti Aayog

(i) For all cases of closure, NITI Aayog shall monitor the implementation of the decision along the prescribed timelines.

(ii) There shall be an Oversight Committee in place in NITI Aayog. This Committee shall carry out the work of monitoring the implementation of decisions of the Government in this regard.

(iii) The administrative Ministry/ Department may approach NITI Aayog for resolution of any problem/dispute arising out of sale of immovable assets of CPSE(s) approved for closure. NITI Aayog will develop a framework in place for resolution of such issues.

13. Role of Ministry of Finance

(i) Ministry of Finance may examine, either through professional help or otherwise, the request for budgetary support at the stage of seeking in-principle or final approval of the competent authority for closure of CPSE.

(ii) Once closure proposal is approved Ministry of Finance would release funds as per the prescribed time-lines.

14. Proceeds from sale of assets after making payment for all liabilities would be deposited in Consolidated Fund of India.

15. Application to the RoC for Removal of the name of the Company from the Register of Companies

Immediately upon settlement and discharge of all the liabilities, the Board of Directors of the CPSE shall take necessary steps to apply to the Registrar of Companies (RoC) for removal of the name of the Company from the Register of Companies under Section 560 of the Companies Act, 1956 (the corresponding provision under Section 248 of the Companies Act, 2013 has not yet been notified). The Board of Directors may also pass a resolution at this stage to transfer all the residual assets of the Company to another entity or the Central Government as considered necessary.

16. Time-Lines

For ease of use, a matrix of timelines of various steps for closure of the CPSE as per these Guidelines is annexed.

Further, in respect of CPSEs, where the process of closure has already started with the approval of the competent authority and is underway, a shorter timeline may be re-worked out by the administrative Ministry/ Department in consultation with NITI Aayog as per these guidelines.

Time-lines of activities for closure of CPSEs

Sr. No.	Milestones/ Activities	Time-Lines	Para No. of Guidelines
A.	**Preparatory date:** Date of issue of minutes of in-principle approval for closure of sick/ loss-making CPSE by the Cabinet/ CCEA or date of decision by the administrative Ministry for closure. This is shown as $\mathbf{P_O}$.		
1.	Estimation of Statutory dues	$P_O + 2$ months	3.1
	Estimation of dues of employees		3.2
	Estimation of liabilities towards Secured Creditors etc.		3.3
	Estimation of dues payable to Central Government		3.4
	Estimation of other liabilities		3.5
	Estimation of Movable assets		3.6
	Estimation of receivables		3.7
	Estimation of Budgetary Support Required		3.8
	Consultation with NITI Aayog and decision on taking out of BIFR, if applicable		4
2.	All preparatory actions in respect of immovable assets, e.g. up-dating of land records with geo-mapping and other formalities, Obtaining State Governments commitments, Valuation etc.	$P_O + 3$ months	3.9
	Detailed Proposal for closure to be placed before the Cabinet/ CCEA		6
	Placing of information relating to immovable assets/ land on the 'Land Management Portal web site'		10 (v)
B.	**Zero date:** Date of issue of minutes of approval for closure of sick/ loss-making CPSE by the Cabinet/ CCEA. In respect of CPSEs where Cabinet/ CCEA had already approved closure of CPSE, zero date would be the date of the guidelines. This is shown as $\mathbf{T_O}$.		
3.	General notice to employees and other stakeholders intimating about intended closure	$T_O + 5$ days	7.2.iii
	Intimate/ apply to the Ministry of Labour and Employment in respect of closure		

Sr. No.	Milestones/ Activities	Time-Lines	Para No. of Guidelines
4.	Request for budgetary support from Department of Expenditure.	T_O + 15 days	7.1
	Action for taking CPSE out of BIFR		7.2.(i)
5.	Transfer of assets to Holding company/ administrative Ministry/ Department	T_O + 1 months	7.3
6.	Settlement of statutory dues/ liabilities towards revenues, taxes etc.	T_O + 2 months	7.2.(ii)
	Payment of secured creditors as one time settlement		7.2.(v)
	Negotiation with State Government		9.3
7.	Settlement of wages/salaries of employees and statutory dues	T_O + 3 months	7.2 (iii)
	Disposal of movable assets		8
	Return of leasehold land to State Government with conditions of non-sale		9.1(i)
8.	Retrenchment of employees not opting for VRS	T_O + 4 months	7.2.(iv)
9.	Sale of leasehold/ freehold land to Central Government departments, Central Government bodies/ CPSEs, State Government departments, State Government bodies/ PSEs.	T_O + 6 months	9.2 (i), (ii)
10.	Auction of land to any entity after exhausting option at sl no. 9	T_O + 12 months	9.2 (iii)
11.	Application to Registrar of Companies for removal of name of CPSE	T_O + 12 months	15
12.	Utilisation of land for public purposes including affordable housing and other flagship programme of Government of India	T_O + 15 months	9.2 (iv)

Note: The above timelines would be suitably modified in individual cases requiring Parliamentary approval.

सत्यमेव जयते

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Ministry of Heavy Industries and Public Enterprises

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