



# Annual Report

2014 - 2015



**Ministry of Steel**  
Government of India





सत्यमेव जयते

# **Annual Report 2014-15**

**MINISTRY OF STEEL**  
GOVERNMENT OF INDIA





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The production, financial and other related figures for 2014-15 are Provisional.

# CHAPTER-I

## HIGHLIGHTS

### 1.1 Trends and Developments in Steel Sector

- India maintains its position of being the 4th largest producer of crude steel in the world and is expected to become the 2nd largest producer of crude steel soon.
- India is the largest producer of direct reduced iron (DRI) or sponge iron in the world.
- In the five years corresponding to the 12th Five Year Plan (2012-2017), domestic demand of total finished steel is considered likely to grow at an annual average growth of over 10% as compared to the average annual growth of 8% achieved between 1991-92 and 2010-11.
- The proposed steel capacity addition in the country is likely to result in an investment of Rs. 5-10 lakh crore by 2020.
- The steel sector contributes to nearly 2% of the country's GDP and employs over 6 lakh people.
- During April-December 2014-15 (prov.), the following is the industry scenario as compared to same period of last year:
  - ❖ Production of crude steel was at 62.392 million tonnes, a growth of 2.5% compared to same period of last year. The Integrated Steel Producers produced 33.677 million tonnes during this period, which was a growth of 2.5% compared to last year. The Mini & Other Producers produced 28.715 million tonnes during this period, which was a growth of 2.4% compared to last year.
  - ❖ Pig iron production for sale was 6.08 million tonnes (a growth of 3.6% compared to last year), after accounting for own consumption/IPT. The Integrated Steel Producers accounted for 14% of the same, the rest (86%) being the share of the Mini & Other Producers.
- In case of total finished steel (alloy + non-alloy) during April - December 2014-15 (prov.):
  - ❖ Production for sale stood at 65.197 million tonnes, a growth of 1.6% compared to last year.
  - ❖ Exports stood at 4.066 million tonnes, a decline of 6.6% compared to last year.
  - ❖ Imports stood at 6.492 million tonnes, a growth of 57.5% compared to last year.
  - ❖ India was a net importer of steel.
  - ❖ Real consumption stood at 55.315 million tonnes, a growth of 1.5% compared to last year.

### 1.2 Major Initiatives taken by the Ministry of Steel during the year

- The Steel & Steel Products (Quality Control) Orders, 2012, have come into effect from 1st Oct. 2014 on all 15 products having direct bearing on safety & security of human beings and infrastructure.
- Expansion of two steel plants namely IISCO, Burnpur and Rourkela Steel Plant are ready to be dedicated to the nation, thus adding about 4.7 million tonnes of crude steel capacity.
- Active engagement with Ministry of Mines, Coal and also Ministry of Environment and Forests has been undertaken for allocation of raw materials and simplification of procedures.
- Facilitated the formation of Indian Steel Association (ISA) to articulate the needs and aspirations of the steel sector of the country.
- As a major step towards ensuring long term security in the supply of coking coal, ICVL has taken over the operating coal mine and coal assets of Rio Tinto in Mozambique.



*Hon'ble Minister of Steel & Mines Shri Narendra Singh Tomar along with Hon'ble Minister of State for Steel & Mines Shri Vishnu Deo Sai inaugurating 'Steel Pavillion' at India International Trade Fair-2014*

- Ministry of Steel is facilitating setting up of Steel Research & Technology Mission of India (SRTMI) to spearhead R&D activities in Iron & Steel Sector in India on a large scale.
- In order to achieve the growth target of production of 300 million tonnes of steel by 2025, a concept of Special Purpose Vehicle (SPV) is being pursued with respective State Governments of Chhattisgarh, Odisha, Jharkhand and Karnataka.
- Sevottam Compliant Citizen's Charter being implemented by the Ministry of Steel to provide prompt services to citizens/clients has been updated.
- To provide information and facilitate investment, an Investment Facilitation Cell has been set up, the details of which are available on the website of the Ministry.
- Ministry of Steel in association with Steel Industry put up "Steel Pavillion" at India International Trade Fair, 2014 with the theme of 'Women Entrepreneurship' where several items of Steel & Mining sector showing the contribution of Women entrepreneurs were showcased.
- Ministry of Steel has taken up the activities under Swachh Bharat Abhiyan and cleanliness pledge was administered to all the employees of Ministry of Steel on 02nd October, 2014. Further, all the CPSEs under the Ministry of Steel have also taken up Swachh Bharat Abhiyan and have also taken up construction of toilets under the Swachh Vidyalaya Abhiyan as part of their CSR activities.

## 1.3 Major Expansion/Acquisitions/Joint Ventures by PSEs

### Steel Authority of India Ltd.(SAIL)

- Steel Authority of India Ltd. has undertaken Modernisation & Expansion of its integrated steel plants at Bhilai, Bokaro, Rourkela, Durgapur & Burnpur and special steel plant at Salem. In the current phase, the crude steel capacity is being enhanced from 12.8 Million Ton to 21.4 Million Ton per annum. The indicative investment for current Phase is about Rs. 61,870 crore. In addition, Rs. 10,000 crores (approximately) has been earmarked for modernization and expansion of SAIL mines.
- Orders for about Rs. 62,804 crore have been placed for various Modernisation & Expansion packages till November, 2014. Cumulative expenditure until November, 2014 has been Rs. 56,661 crore, including expenditure of Rs. 4313.19 crores during the financial year 2014-15.





*Hot Metal Tapping at the 4160 m3 Kalyani, the largest operating Blast Furnace in India at SAIL, ISP, Bumpur*

- Expansion of Salem Steel Plant has been completed. At Rourkela Steel Plant, entire new Integrated process route including Coke making, Sinter making, Iron making with country's one of the largest Blast Furnace (4060 m3), Basic Oxygen Furnace, Slab Caster and Rolling facility in the new Plate Mill has been completed; except Plate Mill Finishing. At IISCO Steel Plant, entire new Integrated process route including Coke making, Sinter making, Iron making with country's largest Blast Furnace (4160 m3), Steel making, Continuous Casting and Wire Rod Mill have been completed; except Bar Mill and Universal Section Mill. At Bokaro Steel Plant, all major facilities like the upgraded BF No.2, Coke Oven batteries No.1&2 and new 1.2 mtpa Cold Rolling Mill have been completed. At Bhilai Steel Plant, Ore Handling Plant Part-A, 2nd Sinter Machine in SP-3 and new Coke Oven Battery - 9 have been completed. At Durgapur Steel Plant, Rebuilding of Coke Oven Battery-2 has been completed. The execution of Modernisation & Expansion Plan is being done with full momentum. The current phase of Modernisation and Expansion is expected to be completed by the end of 2015.

### **NMDC Ltd.**

- i) NMDC Ltd. is setting up a 3 mtpa greenfield integrated steel plant at Nagarnar, District- Bastar in Chhattisgarh.
- ii) An MoU has been signed between NMDC Limited and Indian Railways for doubling of the 150 km Jagdalpur-Kirandul section of the Kottavalsa-Kirnadul line of the East Coast Railways to augment the evacuation capacity of NMDC to meet the increased demand for iron ore of the Indian steel industry.
- iii) NMDC has taken up activities for setting up of 15 mtpa slurry pipeline project consisting of 2 mtpa Iron Ore Beneficiation plants at Bacheli, 2 mtpa Pellet Plant at Nagarnar and Slurry Pipeline System from Bailadila to Vizag via Nagarnar. The portion of the Slurry Pipeline System from Bailadila to Nagarnar will be owned and executed by NMDC and the portion of the Slurry Pipeline System from Nagarnar to Vizag with a 6 mtpa Pellet Plant at Vizag will be set up under JV in which NMDC and RINL are prime members.



- iv) In the process of increasing the iron ore base as well as expanding its geographic footprint, NMDC has acquired significant equity stake in Legacy Iron Ore Ltd., a Perth based Australian exploration company having iron ore tenements and listed on Australian Stock Exchange.

## Rashtriya Ispat Nigam Ltd. (RINL)

- Under Expansion project costing around Rs.12,291 crores for doubling the capacity to 6.3 mtpa of liquid steel:
  - ❖ All major units of Stage-1 have been commissioned and are under regular operation.
  - ❖ The balance units under Stage-2 i.e., Special Bar Mill and Structural Mill are planned for commissioning.
  - ❖ RINL has already spent over Rs.11,114 crores (till 'Dec'14) and the balance amount mainly pertains to last milestone payments and some amount of the progress payments.
- Category-1 Capital Repairs and upgradation of Blast Furnace-1 was completed.
- RINL has completed a project for generation of 20.6 MW power from hot air of straight line cooler of Sinter Machines 1 and 2 in collaboration with NEDO, Japan. This is the first of its kind in India.
- Top Recovery Turbine of BF-3 for 14 MW power generation from waste pressure of BF Gas was commissioned.
- Strategic tie-ups for forward integration/ Business diversification initiatives are on the anvil viz;
  - ❖ A Forged Wheel plant is being setup at Rae Bareli, UP for production of 1,00,000 wheels per annum for High Speed Trains of Indian Railways.
  - ❖ An Axle plant is being set-up for production of 50,000 axles per annum which is an import substitute item for Indian Railways.
  - ❖ JV initiative with NMDC for laying 13 mtpa Iron ore Slurry pipe line from Nagarnar to Visakhapatnam and setting up of 6MTPA pellet Plant at Visakhapatnam.

## 1.4 Highlights of PSEs during 2014-15

### 1.4.1 Steel Authority of India Ltd. (SAIL)

- Profit before tax of Rs. 2084 crores and Profit after tax of Rs. 1758 crores for the first nine months of the Financial Year 2014-15.
- Recorded a Sales turnover of Rs. 37740 crores during April-December,2014, which is higher by 2.33% as compared to corresponding period of last year (CPLY).
- Net worth of the Company was Rs. 43333 crores as on 31.12.2014.
- The SAIL paid an interim dividend to the share holders @ 17.50% of Company's paid-up equity share capital amounting to Rs. 722.84 crore during April-December,2014.

### 1.4.2 Rashtriya Ispat Nigam Ltd. (RINL)

- RINL achieved a growth of 4% over corresponding period last year (CPLY) in Crude steel production for the year 2014-15 till December,2014, in spite of production loss on account of cyclone "Hudhud".
- 16.17 lakh tonnes of value added steel products were produced during the period which is about 77 % of saleable steel.
- Record Export Sales of Rs. 732 crores is achieved - a growth of 41% over CPLY.
- Export of 1.68 lakh tonnes of saleable steel representing a growth of 274% over CPLY.
- 21 new products have been developed during this period. Further two new grades i.e. SAE 1018 IBR and SAE 1019 IBR have been developed for Boiler applications.



## CHAPTER-I

- International Marketing Office in Sri Lanka has been registered.
- Performance of RINL was rated as "Excellent" as per MoU rating for the year 2013-14 by the Department of Public Enterprises.

### 1.4.3 NMDC Ltd.

- Domestic sales of NMDC during 2014-15 (upto Dec'14) was 21.11 million tonnes as against 19.46 million tonnes during corresponding period of last year (CPLY).
- The Company exported 1.72 million tonnes of Iron Ore to Japan, South Korea and China valued at approximately Rs. 1042.70 crores during current year (upto Dec'14) as compared to 1.64 million tonnes valued at Rs. 1159 crores in the CPLY.
- Total Sales during the year was 22.83 million tonnes (upto Dec'14) as against 21.10 million tonnes during CPLY.
- The Company's production was 22.50 million tonnes of Iron Ore during 2014-15(upto Dec'14) as compared to 20.16 million tonnes in CPLY.
- Production, dispatch and sales upto III quarter during the year is the highest upto III quarter in any financial year since inception.
- NMDC has earned Profit Before Tax of Rs 7704 crores (upto Dec'14 - provisional) during the year 2014-15 as compared to Rs. 6761 crores during CPLY.
- Performance of NMDC Ltd., was rated as 'Excellent' as per MoU rating for the year 2013-14 by the Department of Public Enterprises.

### 1.4.4 MOIL Ltd.

- MOIL Ltd. produced 8.22 lakh tonnes (prov.) of manganese ore during 2014-15 (upto Dec'14).
- The total income of the Company was Rs. 880.60 crores (prov.) during 2014-15 (upto Dec'14).
- The Profit Before Tax of the company was Rs. 469.32 crores (prov.) during 2014-15 (upto Dec'14).
- The Profit After Tax was Rs.309.80 crores (prov.) during 2014-15(upto Dec'14)
- MOIL has paid Dividend of Rs.126.00 crores for the financial year 2013-14.
- Performance of MOIL was rated as "Excellent" as per MoU rating for the year 2013-14 by the Department of Public Enterprises.

### 1.4.5 MSTC Ltd.

- Govt. of Goa appointed MSTC for e-auction of confiscated Iron Ore in the State during January 2014 and a sale of Rs.393.17 crores has been achieved for a quantity of 3.36 MMT.
- During the period, Iron Ore for a value of Rs.4137 Crore for a quantity of 15.19 MMT was sold from private and NMDC mines of Karnataka for both confiscated & fresh produce.
- MSTC has conducted successfully e-auction of confiscated Red Sanders for a value of Rs.990 crores on behalf of Govt. of Andhra Pradesh to the entire satisfaction of the Government.
- MSTC has been engaged by Government of Kerala for e-Auction of timber. First auction was successfully carried out in November'14.
- In Trading, MSTC has achieved a sale of Rs. 3200 crores for 5.71 MMT of imported Thermal Coal for power utilities.
- MSTC has done e-procurement of Rs. 1539.71 crores for various Govt. PSUs.
- Government of India has selected MSTC as a service provider to conduct e-Auction of 204 Coal blocks, recently deallocated by Hon'ble Supreme Court.



- Performance of MSTC was rated as "Very Good" as per MoU rating for the year 2013-14 by the Department of Public Enterprises.

## 1.4.6 Hindustan Steelworks Construction Ltd. (HSCL)

- Overall turnover target set in the MOU for FY15 till QR-III has been exceeded (103.10%).
- Overall turnover increased by Rs.148.22 Cr. (16.50%) during FY15 till QR-III over the corresponding period of FY14.
- Order Booking during FY15 exceeded the target by 24.98% till QR-III. Improvement over FY14 has been by 18.84%.
- Operational Profit of FY15 till QR-III recorded Rs.81.89 Cr. (unaudited).
- Unaudited net loss during FY15 recorded (-) Rs.0.60 Cr, a reduction by 99.31% over QR-III of FY14.
- Performance of HSCL was rated as "Excellent" as per MoU rating for the year 2013-14 by the Department of Public Enterprises.

## 1.4.7 MECON Ltd.

In September, 2008 MECON achieved a landmark by turning its negative net worth into positive and by September 2009 it had wiped out its accumulated losses. As per audited accounts, the Net Worth of MECON as on 31.03.2014 is Rs. 416.8 crores. This is significant achievement as compared to the company's negative Net Worth of Rs. (-) 257.91 crores as on 31.03.04. MECON has paid a dividend of Rs.1.69 crores on Preference Share Capital and Rs. 8.03 crores on Equity Share Capital to the Government for the financial year 2013-14. Performance of MECON was rated as "Fair" as per MoU rating for the year 2013-14 by the Department of Public Enterprises.

## 1.4.8 KIOCL Ltd.

- KIOCL paid a final dividend amounting to Rs.8.24 Crores @ Re. 0.13/share (i.e. @ 20.65% of Profit after tax) for the year 2013-14.
- KIOCL produced and sold 0.657 mt and 0.665 mt of pellets during 2014-15 (upto Dec.2014) as against 1.236 mt. & 1.204 mt. during CPLY.
- Performance of KIOCL was rated as "Very Good" as per MoU rating for the year 2013-14 by the Department of Public Enterprises.

## CHAPTER-II

# ORGANISATIONAL STRUCTURE AND FUNCTIONS OF THE MINISTRY OF STEEL

## 2.1 Introduction

The Ministry of Steel is under charge of the Minister of Steel & Mines and is assisted by Minister of State for Steel & Mines. The Ministry is responsible for planning and development of iron and steel industry, development of essential inputs such as iron-ore, limestone, dolomite, manganese ore, chromites, ferro-alloys, sponge iron etc. and other related functions. Details of the subjects allocated to the Ministry may be seen in Annexure-I. The list of Minister-in-charge and the officers down to the level of Deputy Secretary is given in Annexure-II.

### 2.1.1 Key Functions of the Ministry of Steel

- Development of Steel Plants in Public and Private Sectors, the re-rolling industry and ferro-alloys.
- Policy formulation regarding production, distribution, pricing of iron & steel and ferro alloys.
- Development of iron ore mines in the public sector and other ore mines like manganese ore, chrome ore, limestone and other minerals used in the iron and steel industry (but excluding mining lease or matters related thereto).
- Providing a platform for interaction of all producers and consumers of steel in the country.
- Identification of infrastructural and related facilities required by steel industry.
- Overseeing the performance of 8 PSUs, their subsidiaries and one Special Purpose Vehicle (Joint Venture Company) called International Coal Ventures Pvt. Ltd. (ICVL).

### 2.1.2 Allocation of Responsibilities

The Ministry of Steel has a Secretary, Additional Secretary & Financial Adviser, 03 Joint Secretaries, 07 Directors, 02 Deputy Secretaries, 01 Joint Director (OL) and other supporting officers and staff. The Ministry also has an Economic Adviser and a Chief Controller of Accounts. A Technical Wing, under the charge of Deputy Industrial Adviser, gives advice in respect of technical matters besides discharging some secretariat work of technical nature like Research and Development Scheme.

## 2.2 Key Divisions/Sections in the Ministry

SAIL, MFH, Projects and International Corporations, Steel Developments Institutes, Technical Division, NMDC, Raw Materials, Trade and Taxation, Industrial Development, MECON, RINL & Bird Group, Board Level Appointments, KIOCL, MOIL, Budget and Finance, Economic Division.

## 2.3 Other Related Organs of the Ministry of Steel

### 2.3.1 Joint Plant Committee (JPC)

Accredited with ISO 9001: 2008 certification, Joint Plant Committee (JPC) is the only institution in the country, which is officially empowered by the Ministry of Steel / Government of India to collect data on the Indian iron and steel industry, resulting in the creation and maintenance of a complete databank on this industry.

JPC is headquartered at Kolkata with four regional offices in New Delhi, Kolkata, Mumbai and Chennai, engaged in data collection while the Economic Research Unit (ERU) at New Delhi serves as a wing of JPC to carry out techno-economic studies and policy analysis. JPC is headed by a Joint Secretary to Government of India, Ministry of Steel as its Chairman and has representatives from SAIL, RINL, Tata Steel and Railway Board as its Members.



The four Regional Offices of JPC play a pivotal role in close association with the headquarter at Kolkata:

- Collection of production, stock and raw material data from the producers.
- Collection of import and export data from the custom houses.
- Collection of domestic market prices.
- Regular follow-up/monitoring and related liaison activities with industry.
- Visit to defaulting steel producing units for on-spot data collection.
- Active role in field level collection during segment surveys.
- Organizational support to seminars/exhibitions including Ministry of Steel events like the Steel Consumers' Council meetings, steel pavilion at IITF.

## 2.3.2 Economic Research Unit

Research support, forecasting exercises and examination of policy matters/techno-economic studies are provided by the New Delhi based Economic Research Unit of JPC. The ERU also functions as the Secretariat to the prestigious Prime Minister's Trophy and the Steel Minister's Trophy. In recent times, the ERU has completed the work on demand-supply estimation for the 12th Five Year Plan for Steel. The ERU is the secretariat of Steel Exporters' Forum, which is an association of the industry and various government bodies, set up to facilitate exports of the steel from the country.

## 2.4 List of Public Sector Units under the administrative control of the Ministry of Steel

Sl. No.	Name of the Company	Headquarters	Subsidiaries
1.	Steel Authority of India Ltd.	Ispat Bhawan, Lodi Road, New Delhi - 110003	SAIL Refractory Co. Ltd. Post Bag No. 565 Salem-636005 (TN)
2.	Rashtriya Ispat Nigam Ltd.	Administrative Building, Visakhapatnam - 530031 (Andhra Pradesh)	Eastern Investment Ltd. (EIL), Orissa Minerals Development Co. Ltd. (OMDC), Bisra Stone Lime Co. Ltd. (BSLC) AG-104, Saurav Abasan 2nd Floor, Sector II, Salt Lake City, Kolkata-700091
3.	NMDC Ltd.	Khanij Bhawan, 10-3 -311/A, Castle Hills, Masab Tank, Hyderabad-500028 (Andhra Pradesh)	J&K Mineral Development Corporation Ltd., 143-A, Gandhi Nagar, Jammu-180004 (J&K)
4.	MOIL Ltd.	MOIL Bhawan, 1-A, Katol Road, Nagpur-440013 (Maharashtra)	
5.	MSTC Ltd.	225-C, Acharya Jagdish Chandra Bose Road, Kolkata-700020 (West Bengal)	Ferro Scrap Nigam Ltd., FSNL Bhawan, Equipment Chowk, Central Avenue, Bhilai-490001 (Chhattisgarh)
6.	Hindustan Steelworks Construction Ltd.	5/1, Commissariat Road, (Hastings), Kolkata - 700022 (West Bengal)	
7.	MECON Ltd.	MECON Building, Ranchi-834002 (Jharkhand)	
8.	KIOCL Ltd.	II Block, Koramangala Bengaluru-560034 (Karnataka)	
9.	ICVL Ltd.	Ispat Bhawan, Lodi Road, New Delhi-110003	

## ORGANISATION CHART

### Ministry of Steel

Secretary					
AS&FA					
Economic Advisor		CCA	JS(B)	JS(A)	JS(K)
<b>Director (HLM)</b> <ul style="list-style-type: none"> <li>Economic Division</li> </ul>	<b>Director (DB)</b> <ul style="list-style-type: none"> <li>Budget</li> <li>Finance</li> <li>Cash</li> </ul>	<ul style="list-style-type: none"> <li>P&amp;AO</li> </ul>	<b>Director (TS)</b> <ul style="list-style-type: none"> <li>Vigilance Division</li> </ul>	<b>Director (AP)</b> <ul style="list-style-type: none"> <li>NMDC Division</li> <li>R.M. Division</li> <li>Trade &amp; Taxation Division</li> </ul>	<b>Director (TS)</b> <ul style="list-style-type: none"> <li>Estt. Division</li> <li>KIOCL Division</li> <li>O. L. Division</li> <li>Record Room</li> <li>Receipts &amp; Despatch</li> </ul>
			<b>Director (DB)</b> <ul style="list-style-type: none"> <li>SAIL Division</li> <li>MFH Division</li> </ul>	<b>Director (KSN)</b> <ul style="list-style-type: none"> <li>Industrial Development Division</li> <li>Mecon Division</li> </ul>	<b>Director (MP)</b> <ul style="list-style-type: none"> <li>RINL &amp; Bird Group Division</li> <li>Coordination Division</li> <li>Board Level Appointments Cell</li> <li>Logistics Cell</li> <li>Control Cell</li> <li>Parliament Cell</li> <li>HR PSU Information Cell</li> <li>MOIL Division</li> </ul>
			<b>Director (KSN)</b> <ul style="list-style-type: none"> <li>Projects &amp; International Cooperation Division</li> </ul>		<b>Director (KSN)</b> <ul style="list-style-type: none"> <li>General Admn. Division</li> <li>Library</li> </ul>
			<b>DS (MT)</b> <ul style="list-style-type: none"> <li>Steel Development (Institutes) Division</li> </ul>		
			<b>DIA (SKB)</b> <ul style="list-style-type: none"> <li>Technical Division</li> </ul>		





## CHAPTER-III

# THE INDIAN STEEL SECTOR: DEVELOPMENT AND POTENTIAL

## 3.1 Introduction

At the time of Independence in 1947, India had only three steel plants - the Tata Iron & Steel Company, the Indian Iron and Steel Company and Visveswaraya Iron & Steel Ltd and a few electric arc furnace-based plants. The period till 1947 thus witnessed a small but viable steel industry in the country, which operated with a capacity of about 1 million tonne and was completely in the private sector. From the fledgling one million tonne capacity status at the time of independence, India has now risen to be the 4th largest crude steel producer in the world and the largest producer of sponge iron. As per official estimates, the Iron and Steel Industry contributes around 2 per cent of the Gross Domestic Product (GDP). From a negligible global presence, the Indian steel industry is now globally acknowledged for its product quality. As it traversed its long history since independence, the Indian steel industry has responded to the challenges of the highs and lows of business cycles. The first major change came during the first three Five-Year Plans (1952-1970) when in line with the economic order of the day, the iron and steel industry was earmarked for state control. From the mid-50s to the early 1970s, the Government of India set up large integrated steel plants in the public sector at Bhilai, Durgapur, Rourkela and Bokaro. The policy regime governing the industry during these years involved:

- Capacity control measures: Licensing of capacity, reservation of large-scale capacity creation for the public sector units.
- A dual-pricing system: Price and distribution control for the integrated, large-scale producers in both the private and public sectors, while the rest of the industry operated in a free market.
- Quantitative restrictions and high tariff barriers
- Railway freight equalization policy: To ensure balanced regional industrial growth.
- Controls on imports of inputs, including technology, capital goods and restrictions on finances and exports.

**3.1.1** The large-scale capacity creation in the public sector during these years contributed to making India the 10th largest steel producer in the world as crude steel production grew markedly to nearly 15 million tonnes in the span of a decade from a mere 1 million tonne in 1947. But the trend could not be sustained from the late 1970's onwards, as the economic slowdown adversely affected the pace of growth of the Indian steel Industry. However, this phase was



*February 4, 1959: President, Dr. Rajendra Prasad commissioning Bhilai's first Blast Furnace*

reversed in 1991-92, when the country replaced the control regime by liberalization and deregulation. The provisions of the New Economic Policy initiated in the early 1990's impacted the Indian steel industry in the following ways:

- Large-scale capacities were removed from the list of industries reserved for the public sector. The licensing requirement for additional capacities was also withdrawn subject to locational restrictions.
- Private sector came to play a prominent role in the overall set-up.
- Pricing and distribution control mechanisms were discontinued.
- The iron and steel industry was included in the high priority list for foreign investment, implying automatic approval for foreign equity participation up to 50 per cent, subject to the foreign exchange and other stipulations governing such investments in general.
- Freight equalization scheme was replaced by a system of freight ceiling.
- Quantitative import restrictions were largely removed. Export restrictions were withdrawn.

**3.1.2** The system, thereafter, underwent marked changes. For steel makers, opening up of the economy opened up new channels of procuring their inputs at competitive rates from overseas markets and also new markets for their products. It also led to greater access to information on global operations/techniques in manufacturing. This, along with the pressures of a competitive global market, increased the need to enhance efficiency levels so as to become internationally competitive. The steel consumer, on the other hand, was now able to choose items from an array of goods, be it indigenously manufactured or imported. With the opening up of the economy in 1992, the country experienced rapid growth in steel making capacity. Large integrated steel plants were set up in the Private Sector by Essar Steel, Ispat Industries, Jindal Group etc. Tata Steel also expanded its capacity. To sum up, some of the notable milestones in the period were:

- Emergence of the private sector with the creation of around 9 million tonnes of steel capacity based on state-of-the-art technology.
- Reduction/ dismantling of tariff barriers, partial float of the rupee on trade account, access to best-practice of global technologies and consequent reduction in costs - all these enhanced the international competitiveness of Indian steel in the world export market.

**3.1.3** After 1996-97, with the steady decline in the domestic economy's growth rate, the Indian steel industry's pace of growth slowed down and in terms of all the performance indicators - capacity creation, production, consumption, exports and price/ profitability - the performance of the industry fell below average. In foreign trade, Indian steel was also subjected to anti-dumping/ safeguard duties as most developed economies invoked non-tariff barriers. Economic devastation caused by the Asian financial crisis, slowdown of the global economy and the impact of glut created by additional supplies from the newly steel-active countries (the steel-surplus economies of erstwhile USSR) were the factors that pulled down growth levels. However, from the year 2002, the global industry turned around, helped to a great extent by China, whose spectacular economic growth and rapidly-expanding infrastructure led to soaring demand for steel, which its domestic supply could not meet. At the same time, recoveries in major markets took place, reflected by increase in production, recovery of prices, return of profitability, emergence of new markets, lifting of trade barriers and finally, rise in steel demand - globally. The situation was no different for the Indian steel industry, which by now had acquired a degree of maturity, with emphasis on intensive R&D activities, adoption of measures to increase domestic per capita steel consumption and other market development projects, import substitution measures, thrust on export promotion and exploring global avenues to fulfil input requirements.

**3.1.4** The rapid pace of growth of the industry and the observed market trends called for certain guidelines and framework. Thus was born the concept of the National Steel Policy, with the aim to provide a roadmap of growth and development for the Indian steel industry. The National Steel Policy (NSP) was announced in November 2005 as a basic blueprint for the growth of a self-reliant and globally competitive steel sector. The long-term objective of the National Steel Policy 2005 is to ensure that India has a modern and efficient steel industry of world standards, catering to diversified steel demand. The focus of the policy is to attain levels of global competitiveness in terms of global benchmarks of efficiency and



productivity. The National Steel Policy 2005 seeks to facilitate removal of procedural and policy bottlenecks that affect the availability of production inputs, increased investment in research and development, and creation of road, railway and port infrastructure. The Policy focuses on the domestic sector, but also envisages a steel industry growing faster than domestic consumption, which will enable export opportunities to be realized. The policy needs to be in sync with changing times. Therefore, a new 'Steel Vision' for the next 20 years is under finalization.

## 3.2 Production, Consumption and Growth of Steel

**3.2.1** The table below shows the trend in production for sale, import, export and real consumption of total finished steel (alloy + non-alloy) in the country for last five years and April-December 2014-15:

Year	Total Finished Steel (alloy + non-alloy) (million tonnes or mt)			
	Production for sale	Import	Export	Real Consumption
2009-10	60.62	7.38	3.25	59.34
2010-11	68.62	6.66	3.64	66.42
2011-12	75.69	6.86	4.59	71.02
2012-13	81.68	7.93	5.37	73.48
2013-14	87.67	5.45	5.98	74.09
April-December 2014-15*	65.19	6.49	4.07	55.31

Source: JPC; \*provisional

**3.2.2** Crude steel production has shown a sustained rise since 2009-10 along with capacity. Data on crude steel production, capacity and capacity utilization during the last five years and April-December 2014-15 is given in the table below:

Year	Crude Steel		
	Capacity (mt)	Production (mt)	Capacity utilization (%)
2009-10	75.00	65.84	88
2010-11	80.36	70.67	88
2011-12	90.87	74.29	82
2012-13	97.02	78.42	81
2013-14	101.02	81.69	81
April-December 2014-15*	75.76^	62.39	82

Source: JPC; \*provisional; ^pro-rata, based on annual data

- Crude steel production grew at a CAGR of 7 per cent during the last five years ending 2013-14. Such growth in production was driven by capacity expansion from 75 mt in 2009-10 to 101.02 mt in 2013-14, a growth of 9 per cent (on a CAGR basis).
- Production for sale of total finished steel stood at 87.67 mt during 2013-14 as against 60.62 mt in 2009-10 growing at average annual growth rate of 8.9 per cent in CAGR terms during this five-year period while real consumption at 74.09 mt during 2013-14 grew by 7.2 per cent on CAGR basis during this period.
- India, a net importer of total finished steel since 2007-08, turned into a net exporter in 2013-14, with total exports of 5.98 mt exceeding total imports of 5.45 mt. Exports grew by 6.2 per cent while imports fell by 1.4 per cent during the last five year period, both on a CAGR basis. However, India became a net importer of total finished steel in April-December 2014-15.

## CHAPTER-III

**3.2.3** The above crude steel performance has been contributed largely by the strong trends in growth of the electric route of steel making, particularly the induction furnace route, which accounted for 34 per cent of total crude steel production in the country during 2013-14 as also during April-December 2014-15 and has emerged as a key driver of crude steel production. The shares of the different process routes in total production of crude steel in the country during the terminal years of the last five year span, i.e. 2009-10 and 2013-14 are shown in the table below along with data for April-December 2014-15:

Crude steel production by Process Route			
Process Route	Percentage share (%)		
	2009-10	2013-14	April-December 2014-15*
Basic Oxygen Furnace (BOF)	45	43	44
Electric Arc Furnace (EAF)	25	23	22
Induction Furnace (IF)	30	34	34
Total	100	100	100

Source: JPC; \*provisional

**3.2.4** India is also a leading producer of sponge iron with a host of coal based units, located in the mineral-rich states of the country. Over the years, the coal based route has emerged as a key contributor and accounted for 88 per cent of total sponge iron production in the country in 2013-14 and 89% during April-December 2014-15 (prov.). Capacity in sponge iron making has also increased over the years and stood at 45 million tonnes in 2013-14. India has been the world's largest sponge iron producer every year since 2003. The table below shows the total production of sponge iron in the country, indicating the break-up of the share of coal and gas based route of production for the last five years and April-December 2014-15:

Year	Production of Sponge Iron (unit: million tonnes)					
	2009-10	2010-11	2011-12	2012-13	2013-14	April-December 2014-15*
Coal based	18.18	19.27	19.80	19.07	20.19	14.96
Gas based	6.15	6.07	5.17	3.94	2.68	1.76
Total	24.33	25.34	24.97	23.01	22.87	16.72

Source: JPC; \*provisional

**3.2.5** India is also an important producer of pig iron. Post-liberalisation, with setting up several units in the private sector, not only imports have drastically reduced but also India has turned out to be a net exporter of pig iron. The private sector accounted for 93 per cent of total production for sale of pig iron in the country in 2013-14. The domestic availability situation of pig iron is given in the table below for the last five years and April-December 2014-15:

Year	Pig Iron Domestic Availability Scenario ('000 tonnes)					
	2009-10	2010-11	2011-12	2012-13	2013-14	April-December 2014-15*
Production for sale	5884	5684	5371	6870	7950	6082
Import	11	9	8	21	34	18
Export	362	358	491	414	943	385
Consumption	5531	5296	4975	6500	7110	5716

Source: JPC; \*provisional





## 3.3 Global ranking of Indian Steel

World crude steel production stood at 1661.5 million tonnes during 2014, an increase of 1.2 per cent over 2013 based on provisional data released by the World Steel Association (WSA). During 2014, Chinese crude steel production reached 823 million tonnes, a growth of 0.9 per cent over 2013. China remained the largest crude steel producer in the world, accounting for 73 per cent of Asian and 50 per cent of world crude steel production during 2014. India was the 4th largest producer during this period and recorded a growth of 2.3 per cent over 2013.

World Crude Steel Production: 2014*			
Rank	Country	Qty (mt)	% change over 2013
1	China	823	0.9
2	Japan	111	0.1
3	United States	88	1.7
4	India	83	2.3
5	South Korea	71	7.5
6	Russia	70.7	2.6
7	Germany	43	0.7
8	Turkey	34	-1.8
9	Brazil	33.9	-0.7
10	Ukraine	27.2	-17.1
	<b>World</b>	<b>1661.5</b>	<b>1.2</b>

Source: WSA; \*provisional

## 3.4 Steel: Key facts

Indian steel scene: April -December 2014-15*		
Total Finished Steel (alloy+non-alloy)	Qty (million tonne)	% change**
Production for sale	65.19	1.6
Import	6.49	57.5
Export	4.07	-6.6
Real Consumption	55.31	1.5
Crude Steel		
Production	62.39	2.5
Capacity Utilization (%)	82	-

Source: JPC; \*provisional; \*\* over same period of last year

Besides achieving the rank of the 4th largest global crude steel producer in 2014 (provisional), India has also made a mark globally in the production of sponge iron/direct reduced iron (DRI). Courtesy a mushrooming growth of coal-based sponge iron units in key mineral-rich pockets of the country, domestic production of sponge iron increased rapidly, enabling the country to achieve and maintain the number one position in the global market. With a series of mega projects, either being implemented or at the proposal stage, which once operational will re-write the structure of the steel industry and its dynamics; and a domestic economy carrying forward the reform process further, the future of the Indian steel industry is definitely optimistic. The data pertaining to production, consumption, import, export etc. of steel sector are at Annexure III-XI.



## 3.5 Trends in Production: Private/Public Sector

The following table highlights the total as also the contribution of the private and public sector in crude steel production in the country during the last five years and April-December 2014-15:

Indian Crude Steel Production							
Sector	Unit	2009-10	2010-11	2011-12	2012-13	2013-14	April-December 2014-15*
Public Sector	mt	16.71	16.99	16.48	16.48	16.77	12.60
Private Sector	mt	49.13	53.68	57.81	61.94	64.92	49.79
Total Production	mt	65.84	70.67	74.29	78.42	81.69	62.39
Share of Public Sector	%	25	24	22	21	21	20

Source: JPC; \*provisional; mt= million tonnes

## 3.6 Plan outlay for the 12th Five Year Plan (2012-17)

For the 12th Five Year Plan (2012-17), the Planning Commission has approved total outlay of Rs. 91174.64 crores (i.e. Internal and Extra Budgetary Resources (I&EBR) of Rs. 90974.64 crores and Gross Budgetary Support (GBS) of Rs. 200.00 crores.

(Rs. in crores)

Sl.No.	Name of the PSUs	12th Plan (2012-17) Approved Outlay		
		I&EBR	GBS	Total
<b>A.</b>	<b>Central Sector Scheme</b>			
1	Steel Authority of India Ltd.	45000.00	0.00	45000.00
2	Rashtriya Ispat Nigam Ltd.*	13373.00	0.00	13373.00
3	Hindustan Steelworks Con. Ltd.	0.00	0.00	0.00
4	MECON Ltd.	25.00	0.00	25.00
5	MSTC Ltd.	105.00	0.00	105.00
6	Ferro Scrap Nigam Ltd.	60.00	0.00	60.00
7	NMDC Ltd.	27872.17	0.00	27872.17
8	KIOCL Ltd.	3080.00	0.00	3080.00
9	MOIL Ltd	1459.47	0.00	1459.47
	<b>Total (A)</b>	<b>90974.64</b>	<b>0.00</b>	<b>90974.64</b>
<b>B.</b>	<b>Centrally Sponsored Scheme</b>			
1	Promotion of Research and Development in Iron & Steel Sector			
1(i)	Ongoing R&D Scheme	—	48.00	48.00
1(ii)	Development of Technology or Cold Rolled Grain Oriented (CRGO) Steel Sheets and other value added steel products (new components)	—	150.00	150.00
1(iii)	Development of innovative iron/ steel making Process/Technology (new projects under existing scheme)	—	2.00	2.00
	<b>Total (B)</b>	<b>—</b>	<b>200.00</b>	<b>200.00</b>
	<b>Grand Total (A+B)</b>	<b>90974.64</b>	<b>200.00</b>	<b>91174.64</b>

\* OMDC Ltd. and BSLC Ltd. were constituents of erstwhile Bird Group of Companies, which have become subsidiary PSUs of RINL and their figures have been clubbed with RINL.



### **3.7 Role of the Ministry of Steel**

The pre-deregulation phase has seen the Ministry of Steel in the key role of a regulator which was essential, given the operating economic conditions, the limited presence of industry and the scarcity of key raw material for steel-making at home. Through skilful and judicious decisions on allocation and pricing and formulating related policy measures, the Ministry of Steel had played an important role in taking the steel industry forward in this phase.

In the post-deregulation period, the role of the Ministry of Steel has primarily been that of a facilitator for the Indian steel industry, being responsible for the planning and development of the iron and steel industry, development of essential inputs such as iron ore, limestone, dolomite, manganese ore, chromites, ferro alloys, sponge iron, and other related functions. In its present day role, the Ministry of Steel is extending all possible support for the development of the Iron and Steel Industry in the country, in matters like:

- Facilitating expedited growth of steel capacity investments through active coordination and formulation of right policy directives. An Inter-Ministerial Group (IMG) is functioning in the Ministry of Steel, under the Chairmanship of Secretary (Steel) to monitor and coordinate major steel investments in the country.
- Providing linkage for raw materials, rail movement clearance etc. for new plants and expansion of existing ones.
- Facilitating movement of raw materials other than coal through finalisation of wagon requirements and ensuring an un-interrupted supply of raw materials to the producers.
- Regular interactions with entrepreneurs proposing to set up new ventures, to review the progress of implementation and assess problems faced.
- Identification of infrastructural and related facilities required by the steel industry, and coordination of infrastructure requirement of steel sector with the concerned Ministries/Department.
- Promoting, developing and propagating the proper and effective use of steel and increasing the intensity of steel usage, particularly in the construction sector in rural and semi urban areas, through "Institute for Steel Development and Growth (INSDAG)" in Kolkata.
- Encouraging research and development activities in the steel sector. An Empowered Committee under the Chairmanship of Secretary (Steel) provides overall direction to research efforts on iron and steel in the country and approves specific research projects placed before it for funding, fully or partially, from the Steel Development Fund. Efforts are being made to further augment R&D activities in the country with Government budgetary support during the 12th Plan period.

# CHAPTER-IV

## PUBLIC SECTOR

### 4.1 Introduction

The companies under the Ministry of Steel have performed well in the last five years. Profit After Tax (PAT) of the Companies under the Ministry of Steel was around Rs.7121.31 crores during the year 2014-15 (upto December 2014). The details are at Annexure-XIII(A). The contribution to Central and State Government exchequer by way of excise duty, customs duty, dividend, corporate tax, sales tax, royalty etc. was around Rs. 14325.51 crores during the year 2014-15 (upto December 2014). The details are at Annexure-XIV and XIV(A).

### 4.2 Steel Authority of India Ltd. (SAIL)

The Steel Authority of India Limited (SAIL) is a company registered under the Indian Companies Act, and is a Central Public Sector Enterprise (CPSE). It has five integrated steel plants at Bhilai (Chhattisgarh), Rourkela (Odisha), Durgapur (West Bengal), Bokaro (Jharkhand) and Burnpur (West Bengal). SAIL has three special and alloy steels plants viz. Alloy Steels Plant at Durgapur (West Bengal), Salem Steel Plant at Salem (Tamil Nadu) and Visvesvaraya Iron and Steel Plant at Bhadravati (Karnataka). SAIL has also several units viz. Research and Development Centre for Iron and Steel (RDCIS), Centre for Engineering and Technology (CET), Management Training Institute (MTI) and SAIL Safety Organisation (SSO) all located at Ranchi, Central Coal Supply Organisation (CCSO) located at Dhanbad, Raw Materials Division (RMD), Environment Management Division (EMD) and Growth Division (GD) all located at Kolkata, and SAIL Refractory Unit at Bokaro. Chandrapur Ferro Alloy Plant, (CFP) erstwhile Maharashtra Elektros melt Ltd. (MEL) became a Unit of SAIL in the year 2011-12. The Central Marketing Organisation (CMO), with its headquarters at Kolkata, coordinates the countrywide marketing and distribution network of the Company. The SAIL Consultancy Division (SAILCON) functions from New Delhi.

#### 4.2.1 Capital Structure

The Authorized Capital of SAIL is Rs. 5000 crores. The paid up capital of Company is Rs. 4130.52 crore as on 31.12.2014, out of which 75% is held by the Government of India and the balance 25 % by the Financial Institutions/GDR holders/Banks/ Employees/Individuals etc.

#### 4.2.2 Disinvestment

The Cabinet Committee on Economic Affairs (CCEA) in its meeting held on 19.07.2012 approved the proposal for disinvestment of 10.82% of paid up share capital of the Company out of Government of India's shareholding in SAIL. However, it was subsequently decided to divest only 5.82% of the paid up share capital i.e. 24,03,96,572 shares in the financial year 2012-13, thus reducing the Government of India's shareholding from 85.82% to 80%. The balance 5 % of the shares i.e. 20,65,26,264 shares were divested through "Offer For Sale" (OFS) on 05.12.2014, thus further reducing the Government of India's shareholding in the Company from 80 % to 75%.

#### 4.2.3 Financial Performance

The Company recorded turnover of Rs. 37740 crores in the first nine months of the Financial Year



*Hon'ble Minister of Steel & Mines, Shri Narendra Singh Tomar at the New Plate Mill of SAIL's Rourkela Steel Plant with SAIL Chairman, Shri C.S. Verma & Joint Secretary, (Steel), Shri Sunil Barthwal*





2014-15. The post-tax net profit was Rs. 1758 crores for the first nine months of the Financial Year 2014-15. The Company has paid dividend @ 17.50% of paid-up equity share capital amounting to Rs. 722.84 crores for the first nine months of the Financial Year 2014-15.

## 4.2.4 Production Performance

The details of actual production are as under:

(million tonnes)

	2013-14	2014-15 (Apr-Dec'14)
Hot Metal	14.4	11.2
Crude Steel	13.6	10.2
Saleable Steel	12.9	9.4

## 4.2.5 Raw Materials

During 2014-15 (April-December'2014), Actual production of iron ore, fluxes, raw coal from SAIL captive mines and collieries is about 16.64 million tonnes, 1.57 million tonnes and 0.51 million tonne respectively.

SAIL has fulfilled the requirement of iron ore for its steel plants from its captive mines by producing about 25.32 million tonnes during 2013-14. The production of fluxes from captive mines during 2013-14 was 2.18 million tonnes. During 2013-14, raw coal production in captive collieries of SAIL was 0.69 million tonnes.

## 4.2.6 Manpower

The Manpower Strength of SAIL as on 1st April, 2014 was 97897. The Manpower strength of SAIL as on 1.12.2014 is 95627 (Executive 14937 / Non-Executive 80690), achieving reduction of 2270 manpower during the year 2014-15 (upto 1st Dec. 2014).



*SAIL views its manpower as a valuable asset*

### 4.3 Rashtriya Ispat Nigam Ltd. (RINL)

Rashtriya Ispat Nigam Limited (RINL), a Navratna PSE, is the corporate entity of Visakhapatnam Steel Plant - the country's first shore-based integrated steel plant at Visakhapatnam, Andhra Pradesh, set up with a capacity of 3.0 Mtpa of liquid steel, started production from its 6.3 Mtpa Expansion facilities.

The Company has one subsidiary, Eastern Investment Limited (EIL) with 51% shareholding, which in turn has 2 subsidiaries, M/s Orissa Mineral Development Company Ltd (OMDC) and M/s Bisra Stone Lime Company Ltd (BSLC). The company has partnership in RINMOIL and ICVL in the form of Joint Ventures with 50 % and 14.29 % shareholding respectively.

Main activities of RINL include production of steel products in the longs category from its operating unit at Visakhapatnam and marketing them through a network of 23 branch offices, 22 stockyards, and 6 CSAs across the country.



*Blast Furnace of RINL*

The principal products of RINL include Rebars, Wire Rods, Rounds and Structurals. The Company also markets Billets, Blooms, Pig Iron and by-products like coal chemicals (Ammonium Sulphate, Benzol products etc.) and slag.

#### 4.3.1 Financial Performance

RINL has paid a Dividend of Rs.101.65 crores to the Government of India for the financial year 2013-14.

#### 4.3.2 Production Performance

The physical performance in terms of production of Crude Steel and Finished Steel is given below:

Item	2013-14	2014-15 Actual (Apr-Dec)
Crude Steel (000t)	3202	2396
Saleable Steel (000t)	3016	2089

RINL's Value Added steel production stood at 16.17 lakh tonnes, which is 77.4% of the Saleable Steel produced during Apr-Dec '14.





## 4.4 NMDC Ltd.

NMDC Limited is a "Navratna" public sector company under the Ministry of Steel, Government of India, primarily engaged in the business of exploring minerals and developing mines to produce raw materials for the industry. It is also expanding its activities towards steel making and other value added products.

Incorporated on November 15, 1958, NMDC has been actively contributing to development of the nation for five decades and grown from strength to strength on its journey to nation building. From a single-product-single-customer company, NMDC has grown to be a major iron ore supplier to the domestic steel industries. NMDC is also doing exploration and prospecting works for high value minerals like diamond in Andhra Pradesh and gold in Tanzania.

NMDC operates the large mechanized iron ore mines in the Country at Bailadila (Chhattisgarh) and Donimalai (Karnataka). The Diamond Mine of NMDC is situated at Panna (Madhya Pradesh). Sponge Iron Unit of NMDC is situated at Paloncha, Andhra Pradesh.

All the iron ore production units of NMDC have been accredited with ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 certifications. The R&D Centre of NMDC is accredited with ISO 9001:2008 certification.

As part of the Greenfield expansion / diversification programme, NMDC is setting up an Integrated Steel Plant of 3 mtpa capacity at Nagarnar, Chhattisgarh. The project is estimated to cost about Rs.15,525 crores. All major technological packages and auxiliary packages have been awarded and construction work is in progress.

NMDC is in the process of expanding its business through forward integration in both Greenfield and Brownfield projects by setting up (a) 1.2 mtpa Pellet Plant at Donimalai in Karnataka (b) 2 mtpa Pellet Plant at Nagarnar along with 2 mtpa Beneficiation Plant at Bacheli interconnected by a Slurry Pipeline between Bacheli and Nagarnar in Chhattisgarh.

NMDC has planned to expand its business through horizontal integration in the fields of Coal, Rock Phosphate, Lime Stone, Gold and Diamond. NMDC has already diversified its activities in the field of renewable energy by setting up Wind Mill in Karnataka and is exploring the possibilities in solar energy.



*A view of NMDC Plant*

## CHAPTER-IV

### 4.4.1 Capital Structure

The Authorized share capital of the company is Rs.400 crores. The paid up equity share capital is Rs.396.47 crores as on 31.12.2014, out of which 80% is held by the Government of India and the balance 20% by the financial institutions/banks/individuals/employees etc.

### 4.4.2 Financial Performance

The Company recorded turnover of Rs.12058 crore in the financial year 2013-14. The post-tax net profit for the year was Rs 6420.08 crore. The Company has paid dividend @ 850% of paid up equity capital for the year 2013-14. The sale turnover and net profit after tax upto December, 2014 were Rs. 9425 crores and Rs. 5075 crores respectively (provisional).

### 4.4.3 Production Performance

The details of the actual production are given below:

Items	2013-14	2014-15 (upto Dec'14)
Iron Ore (in LT)	300.25	225.00
Diamonds (in Carats)	37082	26237
Sponge Iron (in Tonnes)	29734	21821

### 4.4.4 Manpower

The Manpower strength of NMDC as on 31.03.14 was 5664 and as on 31.12.14, it was 5507 (Executives 1208 / Non-executives 4299).

## 4.5 MOIL Ltd.

MOIL is a Schedule "A" Miniratna Category -I Company. It was originally incorporated as MANGANESE ORE (INDIA) LIMITED in the year 1962. Subsequently, name of the Company was changed from MANGANESE ORE (INDIA) LIMITED to MOIL Limited during the Financial year 2010-11.

During the Financial year 2010-11, MOIL got listed on 15th December, 2010 on National Stock Exchange and Bombay Stock Exchange. After the listing, the shareholding in the company, of Govt. of India, Govt. of Maharashtra and Govt. of Madhya Pradesh is 71.57%, 4.62% and 3.81% respectively. Rest 20% shares are held by the public.



A Panoramic View Of MOIL's Dongri Buzurg Opencast Mine At Night





MOIL produces and sells different grades of Manganese Ore. They are:-

- High Grade Ores for production of Ferro manganese
- Medium grade ore for production of Silico manganese
- Blast furnace grade ore required for production of hot metal and
- Dioxide for dry battery cells and chemical industries.

MOIL has set up a plant based on indigenous technology to manufacture Electrolytic Manganese Dioxide (EMD). This product is used for the manufacture of dry battery cells. EMD produced by the Company is of good quality and well accepted by the market. A Ferro manganese plant having a capacity of 10,000 MT per annum was also set up in 1998 by MOIL for value addition.

In order to promote non-conventional energy resources, MOIL has installed 4.8 MW Wind Energy Farm at Nagda Hills and 15.2 MW Wind Farm at Ratedi Hills, Dist. Dewas in Madhya Pradesh.

## 4.5.1 Capital Structure

The Authorised and paid-up Capital of the Company are Rs. 250 (Two Hundred Fifty) crores and Rs.168.00 crores respectively, as on 31st Dec., 2014.

## 4.5.2 Financial Performance

The Company recorded total turnover of Rs.1021.28 crore in the financial year 2013-14. The profit after tax for the year 2013-14 was Rs 509.56 crore and that during period from April to Dec. 2014 was Rs. 309.80 crores. The Company has paid dividend of Rs. 126 crores for the year 2013-14.

## 4.5.3 Production Performance

Items	2013-14	2014-15 (April-Dec.14)
Manganese Ore ('000 Tonnes)	1135	822
E.M.D. (MT)	923	732
Ferro Manganese(MT)	10042	7415

## 4.6 MSTC Ltd.

MSTC Limited formerly known as Metal Scrap Trade Corporation Limited was set up in September 1964 for regulating export of ferrous scrap from India. The status of the Company underwent a change in February 1974 when it was made a subsidiary of Steel Authority of India (SAIL). In the year 1982-83, the Corporation was converted into an independent PSU under the Ministry of Steel. It was the canalizing agency for import of carbon steel melting scrap, sponge iron, hot briquetted iron and re-rollable scrap till February 1992. It was also the canalizing agency for import of old ships for breaking, Import of such items were decanalized and put under OGL with effect from August 1991.

### 4.6.1 Activities of the Company:-

**E-commerce** - This segment of business includes disposal of Scrap, sale of Coal, Ferro Manganese Ore, Iron Ore, Chrome ore, human hair, Tea etc. through e-auction and e-procurement. The list of Principals includes Ministry of Defence, PSUs like Indian Oil Corpn. Ltd, Oil & Natural Gas Corpn. Ltd, State Electricity Boards, Bharat Sanchar Nigam Ltd, Hindustan Petroleum Corpn. Ltd etc, Tirupati Tirumala Devasthanam (TTD) to name a few. The mode of disposal includes tenders, auction, e-auction, e-tender, e-reverse auction etc.

**Trading** - MSTC is engaged in Import/Export and domestic trade of mainly bulk industrial raw material for actual users. Division looks after sourcing, purchase and sales of industrial raw materials like Heavy Melting Scrap, Low Ash Metallurgical Coke, HR Coil, Naphtha, Crude Oil, Coking Coal, Steam Coal etc on behalf of purchasers in secondary steel sector & petrochemical sector.

## CHAPTER-IV

### 4.6.2 Capital Structure And Share Holding Pattern:

As on 31.03.2014, the authorized capital of the Company is 5,00,00,000 Equity Share of Rs. 10/- each of Rs.50.00 crore and Paid up Capital 88,00,000 Equity Share of Rs.10/- each of Rs. 8.80 crore. Bonus Share issued at 3:1 in 2012-13.

The share holding pattern of the company is as below.

Sl. No.	Name of Share holder	% of Holding
1.	Government of India	89.85
2.	Others	10.15
	Total	100.00

### 4.6.3 Financial Performance

The Company recorded turnover of Rs.5230.30 crore in the financial year 2013-14. The profit after tax for the year was Rs (-) 70.03 crore. The turnover and profit after tax for the year 2014-15 is Rs 5179.71 crore and Rs 73.32 crore (provisional) respectively.

## 4.7 Ferro Scrap Nigam Ltd. (FSNL)

FSNL is a wholly owned subsidiary of MSTC Ltd. with a Paid-up Capital of Rs.2 crore. The Company undertakes the recovery and processing of scrap from slag and refuse dumps in the nine steel plants at Rourkela, Burnpur, Bhilai, Bokaro, Durgapur, Visakhapatnam, Dolvi, Duburi, Haridwar and Rail Wheel Factory-Bengaluru, VISL Bhadravati. The scrap recovered is returned to the steel plants for recycling/disposal and the Company is paid processing charges on the quantity recovered at varying rates depending on the category of scrap. Scrap is generated during iron and steel making and also in the Rolling Mills. In addition, the Company is also providing steel mill services such as scarfing of slabs, handling of BOF slag, etc.

### 4.7.1 Financial Performance

The Company recorded turnover of Rs.23787.67 lakh in the financial year 2013-14. The profit before tax for the year was Rs 1242.83 lakh. The turnover and profit before tax upto December, 2014 were Rs 16833.26 lakh and Rs 185.55 lakh (provisional) respectively.

### 4.7.2 Physical performance

The production performance of FSNL for the last three years & for 2014-15 (Apr-Dec) is given below:

Item	2011-12	2012-13	2013-14	2014-15 (Apr-Dec)
Recovery of Scrap (lakh metric tonne)	21.60	23.26	25.19	16.46
Market Value of Production (Rs. in crores)	950.32	1023.50	1108.45	724.51

\* Provisional

## 4.8 Hindustan Steelworks Construction Ltd. (HSCL)

Hindustan Steelworks Construction Limited (HSCL) is one of the major construction agencies established as a CPSE in 1964 under the administrative control of Ministry of Steel. The mandate for its incorporation was to mobilize indigenous capability for putting up integrated steel plants in the country. The organization rose to the occasion and successfully met the challenge by bringing together competent human resources and mobilizing a fleet of updated construction equipment. HSCL contributed immensely in setting up of almost every major steel plant in India. As the Company grew in resources and expertise, it diversified in other areas like Power Plants, Mining Projects, Irrigation Projects including Dams and Barrages, Oil Refineries, Railways, Airports, Buildings and Commercial Complexes, Rural Roads, Highways, Flyovers, minor and major Bridges for Railways and Road Traffic, infrastructure for Educational Institutions,





Health Centers and Hospitals etc. Today, HSCL is an ISO 9001-2008 Company and its capabilities cover almost every field of construction activities.

At present, the Company carries out a number of project packages under the capacity expansion programme of SAIL and RINL along with regular Operation and Maintenance jobs of these plants. HSCL is currently executing major projects in NTPC Power Plants at Sipat, construction of Educational Infrastructure projects of KVS, NVS, BHU, CITS at Sarnath, National University at Sagar in MP, National Law University at Bhubaneswar in Orissa and Aligarh Muslim University Centre at Jangipur in West Bengal and other Building and Commercial Complexes under State Government Departments and PSUs. Railway embankments with minor and major bridges and open cast mining projects of CCL and ISP are also being executed by HSCL.

## 4.8.1 Capital Structure

The Authorised and Paid-up Share Capital as on date is Rs.150 Crore and Rs.117.10 Crore respectively.

## 4.8.2 Financial Performance

Starting with a modest Rs.5 crore in 1965-66, the Company achieved a Turnover of Rs.1410.21 crores in 2013-14, which has been the highest since inception. During 2014-15 the Turnover achieved till 31.12.2014 is Rs. 1046.46 crores (unaudited).

Turnover and Order Booking registered CAGR of 19.02% and 25.51% respectively during the last eight years from 2005-06 till 2013-14; much more than the overall industry growth rate of the country. The financial results also are improving with the Company earning an Operating Profit of Rs.99.80 crores during FY14 with CAGR 15.75% since 2005-06.

Order Booking during 2013-14 had been phenomenal with Rs.2648.98 crores worth of orders booked during the year, registering a growth by 96.51% over 2012-13. Order Booking till the 3rd Quarter of 2014-15 has also been encouraging with Rs.1574.76 crores worth of Orders secured.

## 4.9 MECON Ltd.

MECON Limited, a Miniratna PSU under Ministry of Steel, is a premier multi disciplinary design, engineering, consultancy and contracting organization in the field of Metal, Power, Oil & Gas and Infrastructure sectors. MECON's mission is to provide technical consultancy - design and engineering; design and supply of plant, equipment and systems; implementation of new industrial ventures from concept to commissioning.

MECON has successfully turned many highly ambitious dream projects into reality. Second Launching Pad at Sriharikota, India's first indigenous launching pad at Satish Dhawan Space Centre, SHAR; Geo-Technical Centrifuge Facility at IIT Bombay, the 6th of its kind in the world, funded by DST, DRDO & Ministry of HRD; Coal Handling Facility from Ennore Berth to TNEB Power Plant, Asia's biggest Coal Handling facility from harbour to Power Plant with belt conveyor system of 11 kms. and capacity of 2 x 4000 tph; Project Seabird of Indian Navy, India's 1st Ship repair facility are to name a few of them.

Presently MECON is involved in almost all the mega steel projects in India both in public and private sectors. The Company is also deeply entrenched in other fields of diversification being Power, Oil & Gas and Infrastructure and is involved in large number of assignments in public and private sectors.

Along with India MECON has spread its wings in International market also by providing quality design, engineering & consultancy services for about 130 projects in different countries like Indonesia, Qatar, Saudi Arabia, Oman, UAE, Vietnam, USA, etc. MECON has an overseas office in Nigeria to effectively cater to the opportunities in African states.

## 4.9.1 Financial Performance

The financial growth of MECON has been incremental and remarkable over the years. However, during the last two years, the Company has not been able to secure a good order booking due to general economic slowdown that affected the country as a whole. Due to this there is steep decline in the orders booked by the company resulting in turnover of the company dipping down to Rs.341.29 crores during the FY 2013-14. Net profit before tax of the Company has also gone down from Rs.150.72 crores during 2012-13 to Rs.68.69 crores during 2013-14. However, the Net Worth of the Company has increased to Rs.416.80 crores as on 31.03.2014 as compared to Rs.391.29 crores as on 31.03.2012.

### 4.10 KIOCL Ltd.

KIOCL Limited an 100% EOU, ISO 9001-2008, ISO 14001-2004 and ISO 18001-2007 Company established in April, 1976 to meet the long term requirements of Iran. An Iron Ore Concentrate Plant of 7.5 million tonnes capacity was set up at Kudremukh. The project was completed as per schedule with the funds provided by Government of India. The mining operation at Kudremukh was stopped as per the verdict of Hon'ble Supreme Court w.e.f.1.1.2006.

As a diversification measure, the Government approved the construction of a 3 million tonnes per year capacity Pellet Plant in Mangalore in May, 1981. The capacity of the Pellet Plant was enhanced to 3.5 Million tonnes with additions/modifications. The plant went into commercial production in 1987 and is now catering to both domestic and international customer.

KIOCL also has its Pig Iron Complex (Blast Furnace Unit) at Mangalore for manufacturing and supply of foundry grade Pig Iron for domestic market. However, the operation of this unit is kept under suspension since 2009 due to negative contribution.

#### 4.10.1 Financial Performance

The Company recorded total value of sales of Rs.1532.37 crore in the financial year 2013-14 and Rs. 613.76 crore during April to December 2014. The profit after tax for the year 2013-14 was Rs 39.93 crores and during April to December 2014 was Rs. 5.83 crore (provisional).

#### 4.10.2 Production Performance

The target set for production during the year 2014-15 is 1.80 million tonnes of Pellets. Target set for production upto December 2014 during 2014-15 is 1.26 million tonnes. Actual production upto December 2014 is 0.66 million tonnes which represents 52.38% target fulfilment. Considering, the current scenario the likely production of Pellets during the year 2014-15 will be approximately 1.00 million tonnes.



Hon'ble Minister for Steel & Mines Shri Narendra Singh Tomar inaugurated the Pellet Auditorium on 18.9.2014 at KIOCL Limited, Bangalore



## 4.11 Bird Group of Companies (BGC)

Within the Bird Group of Companies, EIL is a shell company and holding company of OMDC and BSLC, which are engaged in mining of Iron & Manganese Ore and Limestone and Dolomite respectively.

After the restructuring as approved by the Union Cabinet, EIL became subsidiary of RINL and holding company of OMDC and BSLC. EIL, BSLC and OMDC became PSU's w.e.f. 19.03.2010. Further, OMDC has been classified as a Schedule 'B' company w.e.f. 19.03.2010 and BSLC has been declared as a Schedule 'C' company. As EIL is a Shell Company, no proposal for classification of EIL is taken at present.

### Performance of the individual Operating Companies

#### (a) Eastern Investment Limited (EIL)

EIL is an investment Company and is the holding company of OMDC and BSLC. OMDC and BSLC are mining companies. The Authorized Capital of the company is Rs.13.50 crores and Paid-up Capital is Rs. 1.44 crores. The Profit Before Tax (PBT) of EIL for the year 2013-14 was Rs. 24 lakhs.

#### (b) The Orissa Minerals Development Company Limited (OMDCL)

OMDC is operating six mining leases of Iron ore and Manganese ore in Odisha. This is one of the oldest mining company of Iron ore and second to NMDC in mining of iron ore under the Central Government. OMDC mines are located in the tribal dominated area of Keonjhar District and are major source of employment to the local people. The Company had set up a small sponge iron plant at Thakurani in 2004. The Company has plan for diversification and value addition. It is planning to set up 2 million ton per annum (mtpa) beneficiation and 2 mtpa pellet plant at Barbil, Odisha. It has also plans to increase the production up to 10 million ton of Iron ore and 1million ton of Manganese ore in next few years.

The Authorized as well as Paid-up Capital of the Company is Rs. 0.60 crore.

### Financial Performance

(Rs. in crores)

Particulars	2012-13	2013-14	2014-15 (Prov) upto Dec. 2014
Sales	NIL	NIL	NIL
Other Income	79.98	75.36	56.28
Profit Before Tax	26.25	16.74	20.89

#### (c) The Bisra Stone Lime Company Limited (BSLC)

BSLC is operating one lease of limestone and dolomite in Sundargarh District of the State of Odisha. It supplies limestone and dolomite mainly to steel plants located in the eastern region. It also has plans for increasing the production capacity up to 5 million tonne by modernizing mining operations and increasing the number of crushers. This is a century old company and is a major source of employment to the tribal people in the area.

The Authorized Capital of the Company is Rs. 87.50 crores and Paid-up Capital is Rs. 87.29 crores.

### Physical Performance

#### PRODUCTION

(in lakh tonnes)

Particulars	2012-13	2013-14	2014-15
Limestone	0.26	0.18	0.02
Dolomite	3.68	3.78	0.99



# CHAPTER-V

## PRIVATE SECTOR

### 5.1 Introduction

The private sector of the Steel Industry is currently playing an important role in production and growth of steel industry in the country. The private sector units consist of both large scale steel producers on one hand and relatively smaller and medium scale units such as Sponge Iron Plants, Mini-Blast Furnace Units, Electric Arc Furnaces, Re-rolling Mills, Cold-rolling Mills and Cooling Units on the other. They not only play an important role in production of primary and secondary steel, but also contribute substantial value addition in terms of quality, innovation and cost effectiveness.

**5.2** As per The Report of the Working Group on Steel for the 12th Five Year Plan, the leading steel producers in the private sector, who are already in the process of capacity expansion and adding new capacities are given in the table below:

(Crude Steel capacity in million tonne)

Sl. No.	Investor	Existing Capacity#	Proposed Brownfield Capacity Expansion upto 2016-17*	Proposed Greenfield Capacity Expansion upto 2016-17*	Proposed Total Capacity in 2016-17*
1	Tata Steel Ltd	9.6	0.4	10	20.0
2	Essar Steel Ltd	8.54	1.46	0	10.0
3	JSW Steel Ltd	14.6	3.8	0	18.4
4	Jindal Steel and Power Ltd	2.4	1.6	7.5	11.5
5	Bhushan Steel Ltd	1.3	0	3.9	5.2
6	Bhushan Power and Steel Ltd	2.5	0	0	2.5
7	Monnet Ispat and Energy Ltd	0.3	1.2	0	1.5
8	Electrosteel Steel Ltd	1.7	0	0.5	2.2
9	Visa Steel Ltd	0.5	1.0	0	1.5
10	POSCO India Project	0	0	4.0	4.0

Source: # JPC; \* The Report of the Working Group on Steel for the 12th Five Year Plan

### 5.3 TATA Steel Ltd.



A Panoramic View of TATA Steel Jamshedpur Works





Tata Steel performance during various quarters of financial year 2013-14 is as under:

(In '000 Tonnes)

Item	Quarter 1	Quarter 2	Quarter 3	Quarter 4 (Estimate)	Total
Hot Metal	2528	2582	2374	2667	10151
Crude Steel	2334	2269	2289	2454	9346
Saleable Steel	2250	2213	2228	2386	9077

## 5.4 JSW Steel Ltd.

The flagship company JSW Group, JSW Steel is one of India's leading integrated steel manufacturer with a capacity of 14.3 MTPA. It is one of the fastest growing companies in India with footprints in over 140 countries. With state-of-the-art manufacturing facilities located in Karnataka, Tamil Nadu and Maharashtra, it is recognized for its innovation and quality. JSW Steel offers wide gamut of steel products that include Hot Rolled, Cold Rolled, Bare & Pre-painted Galvanized & Galvalume®, TMT Rebars, Wire Rods and Special Steel - Rounds, RCS, Bars and Spring Steel Flats.



A view of JSW Steel Plant

### Physical Information

(Figures in million tonnes)

S. No.	Item	2010-11	2011-12	2012-13	2013-14	2014-15 (Apr-Dec)	2014-15 (Jan-Mar)
1	Capacity	9.30	10.80	10.80	14.30	14.30*	14.30*
2	Crude Steel Production	6.43	7.43	8.52	12.17	9.03	NA
3	Saleable Steel Sales	6.10	7.82	8.87	11.86	8.76	NA

\*Capacity for FY14 (entire financial year)

## 5.5 Monnet Ispat and Energy Ltd.

Monnet Ispat & Energy Ltd, a leading sponge iron manufacturer in the country having integrated steel plant of 1.8 mtpa, comprising 0.8 mtpa sponge Iron, 0.7 mtpa Blast Furnace, 0.50 mtpa rebar mill, 0.2 mtpa structural mill, 230 MW Power Plant, 0.75 Sinter Plant, 1.20 mtpa palletisation plant at Raipur & Raigarh in the state of Chhattisgarh. Approx. Rs. 7500 Crores have already been invested and Company has a further expansion programme which includes coke oven, cement grinding unit, lime dolomite plant, slag crushing & atomization plant.

## 5.6 Jindal Steel and Power Ltd.

The successful adoption of pioneering & environmental friendly technology by JSPL wherein low grades "G"/"F" coal is processed in Coal Washery and washed coal fed to Coal Gassifiers to produce Syn Gas, as a substitute for natural gas for use in DRI Plant:



*Worlds first coal Gasification Plant for Iron Making of JSPL at Angul (Odisha)*

1. Coal Gasification Plant based on technology supplied by M/s Lurgi, Germany Commissioned in May, 2014 which is the first in the country for feeding to DRI Plant.
2. Syn Gas based DRI Plant of 1.8 mtpa based on technology supplied by M/s Midrex, USA commissioned in July, 2014.

### 5.7 VISA Steel Ltd.

The Company is setting up an integrated 1 million TPA Special Steel Plant at Kalinganagar Industrial Complex in Odisha. The first phase of 0.5 million TPA Special Steel Long Product Plant is fully operational. The facilities include a 225,000 TPA Blast Furnace, 300,000 TPA Sponge Iron Plant, 5000,000 TPA Steel Melt Shop (with EAF, LRF and VD) & 500,000 TPA Rolling Mill (Bar & Wire Rod Mill).

VISA Steel is renowned supplier of Ferro Alloys to the Indian and Global Special & Stainless Steel manufacturers. Its Ferro Alloy Business currently includes a 180,000 TPA Ferro Alloy Plant with a 75 MW Captive Power which is proposed to be expanded to 250,000 TPA with 125 MW Captive Power Plant, which will make VISA Steel a leading player in Ferro Alloy industry in India and globally.



*Panoramic View of the VISA Steel Plant at Kalinganagar, Jajpur, Odisha*

VISA SunCoke Ltd, a subsidiary of VISA Steel Ltd, is a joint venture company between VISA Steel Limited and SunCoke Energy, USA. It is operating a 400,000 TPA heat recovery coke plant and associated steam generation units at Kalinganagar in Odisha. The Company plans to expand the Coke Business from 0.4 million TPA to 1.6 million TPA over the next few years.

VISA Steel also plans to set up a fully integrated Steel Plant at Raigarh in Chhattisgarh.



## **CHAPTER-VI**

### **RESEARCH AND DEVELOPMENT**

#### **6.1 Research & Development for Steel Sector**

The first R&D Laboratory in the steel sector in India was set up in 1936 at Tata Iron & Steel Company (TISCO). SAIL set up their Corporate R&D Centre in 1972 at Ranchi. R&D facilities in newer plants of JSW Steel and Essar Steel came into being in 2000's, but such facilities are lacking in other plants. Government has also set up several National/ Regional Laboratories /Institutes under CSIR. Amongst them, National Metallurgical Laboratory (NML), Jamshedpur and Institute of Minerals and Materials Technology (IMMT), Bhubaneswar are associated with R&D in iron and steel including minerals and fuels. In addition, some academic institutes, like IITs and NITs, are also engaged in carrying out sponsored research work in the area of iron and steel.

The steel companies like SAIL, Tata Steel, JSW Steel and Essar Steel have accomplished some significant work in the area of raw material beneficiation, agglomeration and product development. However, the major focus of work in these companies generally relates to incremental technology development to address the present and short term needs of various production units. As a matter of fact, barring some commendable product development efforts, their contributions towards disruptive technology development have not been noteworthy. The steel companies in India also invest considerably less on R&D and actual investment even in large steel companies varies in the range of 0.15-0.30% of their turnover as against 1 - 2% in leading overseas steel companies.

##### **6.1.1. Governments Initiatives for Promotion of R&D in iron and Steel Sector**

In order to provide accelerated thrust on R&D, Ministry of Steel (MOS) is encouraging Research and Development activities both in public and private steel sectors. At present Ministry of Steel is operating the following two schemes for promotion of R&D in Iron and Steel Sector:

###### **(i) R&D with Financial assistance from Steel Development Fund (SDF)**

Government has constituted an Empowered Committee (EC) under the Chairmanship of Secretary (Steel) for approval and monitoring of R&D projects under this scheme. The EC has met 24 times and approved 83 R&D projects costing Rs. 696.27 crore with SDF assistance of Rs. 389.63 crore. Out of 83 R&D projects, 47 projects have been completed yielding benefits to the industries, 11 projects have been stopped after mid term review and 25 projects are in progress.

###### **(ii) R&D with Financial assistance from Plan Fund**

Based on the recommendations of the Working Group on Steel Industry, a new scheme i.e. Scheme for Promotion of R&D in Iron and Steel Sector was started in 11th Five Year Plan with an outlay of Rs. 118.00 crore from Plan fund. Under this scheme, R&D was pursued in three major areas namely (i) development of innovative/path breaking technologies; (ii) beneficiation & utilizing Indian iron ore fines and non coking coal; and (iii) improvement of quality of steels produced through induction furnace route.

Being a continuous scheme, the aforesaid scheme was continued in the 12th FY Plan with an allocation of Rs. 200 crore. In the 12th Five Year Plan the following two addition objectives were included in scheme, namely, (i) development of technology for Cold Rolled Grain Oriented (CRGO) steel sheets and other value added innovative steel products and (ii) to pursue R&D on any other subject of national importance concerning the Iron & Steel sector.

There is a Project Approval and Monitoring Committee (PAMC) under the Chairmanship of Secretary (Steel) for approval and monitoring of R&D proposals/projects under this scheme. So far 10 R&D projects have been approved by the PAMC, with a total cost of Rs.138.10 crores involving Plan Fund of Rs. 95.66 crores.



### (iii) Development of Technology for Cold Rolled Grain Oriented (CRGO) Steel Sheets

The technology for production of CRGO Steel Sheet is not readily available as only a handful of manufacturers are there worldwide and they are reluctant to provide the technology. The demand for CRGO Steel Sheets in the country is 2 -2.5 Lakh TPA which is expected to double by end of 12th Plan period. Most of the demand is met from imports with only a marginal quantity is manufactured in India, which is also based on imported semi-finished inputs. It is, therefore, imperative to develop indigenous capabilities for production of CRGO steel sheets in the country.

Under the above backdrop, Ministry of Steel is pursuing a joint collaborative research proposal for 'Development of Technology for Cold Rolled Grain Oriented (CRGO) steel sheets'. NML Jamshedpur, Rashtriya Ispat Nigam Limited (RINL), Tata Steel Limited Jamshedpur and Ministry of Steel are the stakeholders in the initiative and will share the cost of the project. Ministry of Steel has earmarked Rs. 150 crore for the initiative from Plan Fund from the overall allocation of Rs. 200 crore in 12th Five Year Plan. Preparation of DPR of the project has been initiated in Nov 2014 and report is expected in six months. Based on the findings of the DPR, the Project is likely to be initiated in 2015-16.

### (iv) Steel Research & Technology Mission of India

Ministry of Steel is facilitating setting up of an innovative institutional mechanism, namely, Steel Research & Technology Mission of India (SRTMI), to spearhead R&D activities of national importance through joint collaborative research programmes in steel sector. SRTMI will be an Industry led initiative and will be setup as a registered society in close co-operation amongst the steel companies, Ministry of Steel, academia and relevant R&D institutions in the country. Ministry of Steel has taken follow up action and interacting with the steel companies for participation & financial contribution in the initiative for which a Memorandum of Association is likely to be signed shortly.

## 6.2 Steel Authority of India Ltd. (SAIL)

Research & Development Centre for Iron & Steel (RDCIS) has undertaken 80 R&D projects during the year 2014-15, out of which 53 projects are scheduled for completion by March 2015. These projects provide technological inputs to SAIL plants / units with thrust on cost reduction, value addition, quality improvement and development of new products.



*A night view of SAIL's RDCIS building at Ranchi*





RDCIS has filed 27 patents and 26 copyrights from April to November 2014. They have published 55 technical papers and 70 papers have been presented. In addition, RDCIS undertook contract research work and provided significant consultancy services and know-how to organizations outside SAIL.

RDCIS plays a lead role in the product development activities of SAIL. The criteria for selection of products for development are significant demand, ready market, good contribution margin and plant capability. RDCIS, in collaboration with SAIL plants, developed 19 new steel grades during April to December 2014.

## R&D Efforts and Achievements

- Introduction of mixed gas firing system in post ignition chamber in SP-2, DSP
- Improvement in productivity and quality of sinter through preheating of sinter mix and oxygen enrichment in ignition hood at SP-2, DSP
- Performance improvement by innovative sinter mix charging systems in Sinter Machines 2 & 3, BSL
- Improvement in secondary cooling of bloom caster, DSP
- Improvement in performance of BF 5, BSL
- Detection of incipient fault of electrical machines using signature analysis, BSP
- Improvement in life of charging side up-take area of RHF at HSM, BSL
- Control system for billet feeding system and mill setting mechanism for Roughing and Intermediate groups at WRM, BSP
- Introduction of modified ladle heating system in SMS-II, BSP
- Adoption of energy efficient combustion control system and auto change over system for stoves of BF 4, RSP
- Upgradation of tundish heating burners at CCM #2, RSP
- Replication of retro-fitting technologies for improving energy-efficiency and reducing GHG emissions of existing re-heating furnaces in small and medium sector Re-rolling Mills, RDCIS
- Investigation into BOF scrubber circuit incrustation, DSP

## Expenditure on R&D during Last Three Years

(Rs. in crore)

Year	SAIL's Turnover	R&D Expenditure			
		Capital	Revenue	Total	% of Turnover
2011-12	50,348	5.37	129.08	134.45	0.27
2012-13	49,350	2.56	145.07	147.63	0.30
2013-14	51,866	4.38	106.05	110.43	0.21
2014-15 (April-September)	25,449	5.58	74.17	79.75	0.31

## 6.3. Rashtriya Ispat Nigam Ltd. (RINL)

Research and Development initiatives are directed towards meeting the present and future requirements of the plant. Achievements towards R&D up to December 2014 are given below:

- Developed different varieties of MgO-C refractory for zonal lining in converter.
- Developed mathematical modeling for sintering cum pelletisation process for process optimization, consistent sinter quality and improvement in productivity.
- Modified design & operating parameters for calcium recovery & its efficacy for less clogging of Alumina.

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- Developed know-how to predict the effect of iron ore micro-fines on sintering process to maximize iron ore micro-fines usage without affecting sinter productivity & quality.
- Completed feasibility studies for enrichment of BF gas for enhancement of calorific value.
- Studies on Development of Carbon dioxide (CO<sub>2</sub>) Sequestration technique using LD convertor slag to Control the Green House Effect of Carbon dioxide.
- Developed thermo-mechanically treated bars having improved seismic resistance.

**Patent Filed during 2014-15: 3**

### R&D Investment

(Rs. in crore)

Year	Actual Expenditure	Expenditure as % of Turnover
2013-14	50.27	0.37
2012-13	31.13	0.23
2011-12	20.29	0.14
2013-14 till Dec'14	20.31	0.25

### 6.4. NMDC Ltd.

R&D Center is extending technology support to NMDC's existing mines, other organisations in India and abroad. The Centre is committed to maintain its excellence in undertaking product and Technology Development Missions related to Ore and Minerals through continual improvement in process performance for enhanced customer satisfaction.

#### The R&D Centre functions in the following thrust areas:

- Upgradation of processing Technology of existing process plants for better productivity and meet the customer requirement.
- Development of Technology for utilization of mine wastes by and convert mineral and metallurgical wastes into value added products.
- To extend its expertise to in-house projects of NMDC and other domestic & foreign organizations, in the field of Mineral processing, Hydrometallurgy, Agglomeration, Bulk solids handling, Mineralogy and Chemical analysis.
- Identification of new projects and development of cost effective process technology in tune with the long term objectives and strategic plans of the corporation.
- Collaboration with reputed Laboratories and Research Institutes (CSIR, DRDL, DMRL, MISA etc.).
- To provide products, process flow sheet and services to its customers with a high degree of consistency, reliability and time bound delivery and try to exceed the customer expectations.

#### Development Projects

- Investigations on the caking behaviour of wet bulk solids due to prolonged storage and consolidation stress
- Preparation of synthetic flux from iron ore slime for steel making.
- Development of economically viable process flow sheet for Beneficiation of Goethite/ Limonite rich Iron ores of India
- Mineral slurry optimization for pumping in a slurry pipe line
- Development of an alternative process for classification of fines below 1mm.



## R&D Expenditure

(Rs in Crore)

Year	Expenditure on R&D			Annual Turnover	Percentage (%) w.r.t turnover
	Revenue	Capital	Total		
2011-2012	13.76	1.57	15.33	11261.89	0.14
2012-2013	11.98	0.25	12.23	10704.27	0.11
2013-2014	15.02	2.31	17.33	12000.00	0.14
2014-2015 (Up to Oct 2014)	08.98	0.85	9.83		

## 6.5. MECON Limited

MECON completed the following R&D projects successfully during 2014-15:

- Development of Continuous Multi Gases (CO<sub>2</sub>, CO, NO<sub>x</sub> and Sox) Monitor System in Coke Oven Battery No 10 at Bhilai Steel Plant.
- Infrared camera based Ladle Condition Monitoring System in SMS-II at Rourkela Steel Plant.
- Basic System Design On Solid State Cooling Drinking Water Tank For Armoured Vehicles
- On line non contact dimension measurement in Steel Industry

## R&D Expenditure

Year	Turnover (Rs. In Crore)	R&D Expenditure (Rs. In Crore)	% of R&D Expenditure w.r.t. Turnover
2012-13	511.64	2.38	0.465
2013-14	341.29	2.70	0.793
2014-15* (April to Nov. 2014)	137.72	1.76	1.28

## 6.6. MOIL Ltd.

MOIL has carried out R&D activities to improve the safety and productivity in the mines by introducing modern technology with national and international reputed academic and research institutions. Major activities during 2014-15:

- Engaged Indian School of Mines (ISM), Dhanbad for designing of mechanized stoping method at Ukwa Mine for safety and productivity improvements
- Introduced Single Boomer electro-hydraulic crawler mounted drill machine for heading development and conducted blasting studies for safe blasting parameters.
- Engaged National Geophysical Research Institute (NGRI), Hyderabad for Geo-physical prospecting by Gravity-Magnetic method for exploration of manganese ore reserves / resources.
- Engaged National Institute of Technology (NIT), Rourkela to carry out R&D studies for slope stability and monitoring by rock mechanics instruments for improvement in safety.
- Conducted blasting studies by alternative fuel against Diesel in ANFO.
- Conducted in house R&D effort on experimental basis for alternative source (use of bottom ash) against the sand as a fill material for consolidated hydraulic stowing.

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- De-phosphorisation of High carbon ferro manganese alloy for improvement in quality by reduction of phos in HC Ferro Mn Alloy.
- Engaged Central Institute of Mining and Fuel Research, Nagpur for monitoring of stresses at deeper levels for safety with strain bars, which will help to design safe stope geometry and support design for improvement in safety and productivity.

### R & D Expenditure:

(Rs. in crores)

Year	Turnover	Expenditure on R&D	% of Turnover
2011-12	908.25	8.81	0.97
2012-13	970.45	8.54	0.88
2013-14	1032.58	9.19	0.89
2014-15 (April-Nov 2014)	707.61	6.51	0.92

## 6.7 KIOCL Ltd.

### Highlights of R&D Achievements

- Indigenization of Roll Press control system Pellet Plant
- Study on Heat Recovery system from Flue Gases in Pellet Plant
- Feasibility study of Secondary Grinding of Iron Ore Fines for improving the throughput of grinding system at Port Facilities Department

### R & D Expenditures

Year	Turnover	R&D expenditure (Rs. in crores)	R&D expenditure % of Turnover
2010-11	1803.46	0.58	0.032
2011-12	1521.08	1.60	0.11
2012-13	1159.12	0.65	0.06
2013-14	1532.37	0.33	0.02
2014-15 (upto April - Dec.2014)	613.76	0.26	0.04

## 6.8 JSW Steel

JSW has taken up 22 R&D projects on process, energy and product optimization and 4 projects on technology and product development during 2014-15. So far they have completed 17 projects relating to process, energy and product optimization and 3 projects of technology development.

### Major R&D activities carried out during 2014-15

- Change Over from Natural Gas to Carbon Monoxide Gas at different furnaces and boilers of BF, Sinter, SSM, Tunnel Furnace, Caster.
- Development of modified surface profile (Funnel) for mold plate in CSP to reduce casting failure & edge crack in narrow width (900mm)
- Enhancement of Lance life of LCP
- Enhancement of grate bar life of Sinter Plant





- Alternative usage of Slag in Construction Industry
- Improvement of Pellet Quality

## New products developed

- SCR 420 - Micro-alloyed steel with N<sub>2</sub> for transmission gear applications
- SBMA 740- Micro-alloy steel for Hydraulic Cylinder Piston application
- 100Cr 6 (Bearing Steel) & S55CLS (Hub Bearing)
- Cr-Mo steel for Creep resistant applications
- Ultra low sulfur steel for sour gas application
- High carbon grade steel for Railway rails & Track materials for M/s. Lucchini, Italy

## New processes developed

- Optimization of super heats to reduce UT rejections
- Development of water model for tundish for producing ultra clean steel
- Use of SMS slag and fly ash in Eco friendly road pavements.
- Modified EOF Slag as coarse aggregate for concrete and as fine aggregate as a partial replacement of river sand in cement mortar.
- Slow cooling of hot rolled bars to eliminate hydrogen induced cracks in Cr-Mo and medium carbon and high Molybdenum steels.

Patents filed during 2014-15 (April - Dec 2014): 9

## R&D Investment

Indicators	2011-2012	2012-2013	2013-2014	2014-2015 (April 14- Nov 2014)
<b>Vijayanagar Works</b>				
Annual Turnover	24755	27204	29897	-
Investment in R&D	57.14	43.42	22.04	14.63
R&D investment against Annual Turnover	0.231	0.160	0.074	-
<b>Dolvi Works</b>	6.547	6.516	5.919	6.052
Annual Turnover	11272	9700	12200	-
Investment in R&D	12.40	0.97	2.44	1.015
R&D investment against Annual Turnover	0.11	0.01	0.02	-

## 6.9 Tata Steel Ltd. (TSL)

### R&D work carried out during 2014-15

- Chemical beneficiation technology for producing 8% ash clean coal from high ash Indian coals.
- Conducted pilot scale trials at top charge coke oven battery for producing high CSR coke through addition of resins.
- Developed / modified existing submerged entry nozzle (SEN) design to reduce slivers in the coil.
- Reduction of slag patches in high carbon billets.

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- Grate bars used in the Pellet Plant at Jamshedpur exhibited severe damage leading to improper pellet firing and frequent machine breakdown. R&D has diagnosed that the presence of chlorides in the firing fuel resulted in hot corrosion of grate bars. Reduction in chloride input from the fuel substantially reduced grate bar damage and their consumption.
- Conducted Trajectory probe trials with 40% pellets in the ferrous burden in Blast Furnace.

### New process / Product developed (April - Dec. 2014)

- Developed a selective flocculation process for minimizing the Cr<sub>2</sub>O<sub>3</sub> losses in tailing stream from chrome ore beneficiation plant.
- Studies for removal of hexavalent chromium by ion exchange and bio-remediation in collaboration with National Metallurgical Laboratory, Jamshedpur.
- Designed a novel rotary reactor for synthesis and hydrogen gas production from molten Ferrochrome slag.
- Developed a physico-chemical process at lab scale for selective leaching of low grade Mn ores.
- Undertaken Scale up tests @ 25 Kg scale for development of <0.5%C FeMn.

### R&D Investment:

(Rs. in crore)

Year	Amount				% of Turnover
	Recurring	Capital	Total	Turnover	
2010-11	75.69	4.88	80.57	29396.35	0.27
2011-12	52.3	0.68	52.98	33933.46	0.16
2012-13	55.77	3.96	59.73	38199.43	0.15
2013-14	68.45	12.06	80.51	41711.03	0.19

## 6.10 Bhushan Steel Ltd.

### R&D Initiatives:

- Developed IF grade steel for auto applications for inner & outer panel.
- Developed high strength IF 340 Grade steel for dent resistant auto application.
- Developed 28MnB5 high Manganese & Boron Steel Grade for Agricultural applications.
- Developed Fe540 high strength low alloy steel for structural applications.
- Developed high strength low alloy structural Grade steel (EN10025 S355) for Indian Railways.
- Developed BSK46 grade, high strength micro-alloyed grade steel for Auto Chassis as well as various auto applications.



## **CHAPTER-VII**

# **ENERGY AND ENVIRONMENT MANAGEMENT**

## **7.0. Introduction**

Environment management and energy efficiency constitute an important benchmark for assessing any sector or company both globally and domestically. The Ministry of Steel through various schemes and regulations of the Government is facilitating reduction in energy consumption and emission of environment pollution in steel plants. Some of the steps /initiatives being taken by the Ministry of Steel through various forums and mechanisms are:

## **7.1 Government Initiatives**

### **7.1.1 Charter on Corporate Responsibility for Environment Protection (CREP)**

This is an initiative of Government of India in association with the main/ major steel plants to reduce environment pollution, water consumption, & energy consumption, as per mutually agreed targets with the purpose to go beyond the compliance of regulatory norms, for prevention & control of pollution through various measures including waste minimization, in-plant process control & adoption of clean technologies.

### **7.1.2. National Clean Development Mechanism Authority (NCDMA)**

The Clean Development Mechanism (CDM), defined in Article 12 of the Kyoto Protocol, allows a country with an emission-reduction or emission-limitation commitment to implement an emission-reduction project in developing countries. Such projects can earn saleable Certified Emission Reduction (CER) credits, each equivalent to one tonne of CO<sub>2</sub>. To approve such projects, there are two bodies - a National Clean Development Mechanism Authority (NCDMA) at national level and the Executive Board (EB) in Bonn, Germany. The NCDMA accords Host Country Approval (HCA) and the final approval is accorded by the EB. Ministry of Steel is a member of the NCDMA and coordinates the approval of the CDM projects in the Iron & Steel Sector in the country.

### **7.1.3 National Action Plan on Climate Change (NAPCC)**

India is a signatory to the Kyoto Protocol linked to the United Nations Framework Convention on Climate Change (UNFCCC). India is engaged actively in the multilateral negotiations in the UNFCCC in a positive & constructive manner. National Action Plan for Climate Change (NAPCC) has been launched in 2008 to address the Challenge at national level. NAPCC outlines 8 National Missions, one of them being the National Mission for Enhanced Energy Efficiency (NMEEE). NMEEE operates under the Bureau of Energy Efficiency (BEE), a statutory body constituted under the Ministry of Power. Perform Achieve & Trade (PAT) is the flagship scheme under NMEEE. PAT is a market based mechanism through certifications of energy savings which could be traded. PAT has become effective from April 2012 and has set a target of average 5% reduction in energy consumption during the next 3 years.

For the Steel Sector, 67 Units with minimum annual Energy Consumption of 30,000 Ton of Oil Equivalent, has been notified. Ministry of Steel (Technical Wing) is coordinating the matter with concerned Government Departments and agencies as well as industry.

### **7.1.4. Promotion of Energy Efficiency in SME Sector**

UNDP-GEF-MoS Project: Facilitated low carbon technologies in 34 steel re-rolling mills (model units) to bring down energy consumption and reduce GHG emissions by 25-50%. This has helped in replication of the energy efficient technological interventions in many other steel re-rolling mills.

UNDP-MoS-AusAID Project: Aims to further replicate energy efficiency in steel re-rolling mills and expand the interventions to other SME Sector like induction furnaces.

### 7.1.5. NEDO Model Projects for Energy Efficiency Improvement

Government of Japan through Ministry of Economy Trade & Industry provides funds i.e. as Overseas Development Aid (ODA) under its Green Aid Plan (GAP) through Deptt of Economic Affairs in GOI for setting up of energy efficient, environment friendly projects known as Model Projects in various sectors including steel. These projects are routed through and managed by NEDO (New Energy & Industrial Technology Development Organisation), Japan. Ministry of Steel is coordinating the projects undertaken in the iron & steel sector. So far the following three projects have been commissioned, two at Tata Steel and one project at RINL:

- BF Stove Waste Heat Recovery: Completed at Tata Steel
- Coke Dry Quenching: Completed at Tata Steel
- Sinter Cooler Waste Heat Recovery: Completed at Rastriya Ispat Nigam Limited.

## 7.2 Steel Authority of India Ltd. (SAIL)

### Energy Management

Important energy conservation schemes under implementation in the year 2014-15 are listed below:

#### (i) Bhilai Steel Plant

- a) Waste heat recovery from sinter cooler for hot water generation at SP #2 (RDCIS project)
- b) Rebuilding of Stove # 18 of BF # 6
- c) Modernization of SP-II

#### (ii) Rourkela Steel Plant

- a) Retrofitting of BF # 1 with high top pressure operation and CDI
- b) Mixed Gas firing in MP boiler #3

#### (iii) Bokaro Steel Plant

- a) Provision of new gas holder for converter gas.
- b) 2 nos. of modified cover cast with castable instead of bricks in soaking pits
- c) Capital repair of 1 no. recuperators in soaking pits in Slabbing Mill
- d) Change in reheating furnace # 1 from Pusher type to Walking beam type
- e) Introduction of cast house slag granulation facility in Cast House - 1,2, 4 & 5



*Hon'ble President Shri Pranab Mukherjee presenting the prestigious SCOPE Meritorious Award for Environment Excellence & Sustainable Development for the year 2012-13 to SAIL Chairman, Shri C.S. Verma on Nov 05, 2014.*





## Consumption of energy per ton of crude steel (Gcal/tcs):

Plant	2012-13	2013-14	2014-15 (Apr. - Nov.)
BSP	6.61	6.48	6.52
DSP	6.49	6.37	6.37
RSP	6.73	6.68	6.58
BSL	6.74	6.75	6.69
ISP	7.98	8.03	-
<b>SAIL</b>	<b>6.66</b>	<b>6.59</b>	<b>6.59</b>

## Environment Management

### Low carbon usage technologies/ facilities adopted

As a responsible corporate citizen, SAIL has adopted various clean technologies at its plants to reduce CO<sub>2</sub> emissions and achieve energy efficiency. Some of the implemented schemes are; Introduction of mixed fuel (CO/BF/BOF gas along with conventional fuel) firing in Boilers for power /steam generation, Installation of Multi Slit Burners at Sinter Plants, Waste Heat Recovery from Sinter Plants, Installation of Coal Dust and Coal Tar Injection in Blast Furnaces, Thyristorisation of Motor Generator sets, etc.

Consistent efforts of SAIL have resulted in decline in Specific CO<sub>2</sub> emission (from 4 integrated steel plants) from level of 2.80 T/tcs during 2011-12 to 2.69 T/tcs during 2013-14, a reduction of 3.9%, as is shown below:

(Unit: T/tcs)

Parameter	2011-12	2012-13	2013-14	2014-15 (Apr.-Nov. 2014)
Specific CO <sub>2</sub> Emission	2.80	2.75	2.69	2.70

Moreover, in the ongoing modernization-cum-expansion programme of the SAIL plants, an array of clean and energy efficiency technologies have been introduced to lower the energy consumption and reduce CO<sub>2</sub> emission. Following are few of the notable technologies implemented /being implemented at SAIL plants:

- Coke Dry Quenching at BSP, RSP and ISP
- Blast Furnace Top Pressure Recovery Turbine for power generation at BSP, RSP & ISP
- By product gas based Power Plant at BSP & ISP
- Heat recovery from New Sinter machines at BSP, RSP & ISP
- Waste Heat Recovery from Blast Furnace Stoves at BSP, RSP & ISP
- Walking beam re-heating furnaces at BSL & ISP

### Highlights of compliance to national/CPCB/SPCB norms/regulation (during 2014-15 (April - November, 2014))

1. Stack Emission: Particulate Matter (PM) emissions from the stacks of all the major production shops of SAIL plants are meeting the respective norms. However at BSL, PM emission from stack of Sinter Plant was higher than the norm. Multi-cyclones provided with the sinter machines at BSL are being gradually replaced with ESPs to bring down the stack emission within the stipulated norm.
2. Fugitive Emissions: Fugitive emissions from the Coke Oven batteries, Blast Furnaces and Basic Oxygen Furnaces were within the norms at all the SAIL plants.
3. Ambient Air Quality: Ambient Air Quality is mostly within the norms at all the SAIL plants.

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4. Effluent discharge quality: Effluent discharge quality is meeting the norms at all the outfalls of SAIL plants.
5. Solid Waste Generation/Utilisation: Utilisation (%) of BF slag, LD slag and total solid waste during April - November, 2014

BF Slag	LD Slag	Total Solid Waste
92%	81%	87%

**To enhance utilisation of BF Slag and LD Slag, the following initiatives have been taken:**

### (i) BF Slag

In order to achieve full utilisation of BF slag, Cast House Slag Granulation Plants (CHSGPs) are being installed at those BF's where the facility were not been provided with. Accordingly, six nos. CHSGPs are under installation at BSL, with BF#1,2&3 and is expected to be completed by July 2015. Similarly to enhance granulation of BF slag at RSP and ISP, the new Blast Furnaces (BF#5 at RSP and BF#5 at ISP) have been commissioned with CHSGPs. At BSP, the new Blast Furnace (BF # 8) which is being installed as a part of the on-going expansion-cum modernization programme, has in-built CHSGP.

Further, to maximise utilisation of the granulated BF slag, slag based JV cement plants have been set up at Bhilai and Bokaro.

### (ii) LD Slag

- Use of Weathered LD Slag as Rail Track Ballast: The physical properties of weathered LD slag (WLD Slag) meet the specification required for stone ballast for use at rail tracks. In response to a proposal by SAIL, South Eastern Railway (S.E.R.) has agreed to conduct a field trial at the Bokaro Rail Yard with the weathered LD Slag from Bokaro Steel Plant. Commencement of field trial is expected shortly.
- Development of Technology for Dry Granulation of LD Slag and Heat Recovery: Indian Institute of Technology, Kharagpur has been assigned as Consultant for "Laboratory Scale Study for Development of Technology for Dry Granulation of LD/BOF Slag (Hydro-Mechanical Study)". The study is scheduled to be completed in March 2016.
- Use of BF-BOF slag as replacement of natural aggregates (Sand) in IS: 383.

In response to a representation from the major steel manufacturers, the Bureau of Indian Standard (BIS), New Delhi, has agreed in-principle to include BF and BOF slag as alternate material (partial replacement) in place of natural sand for manufacturing cement concrete, in the relevant BIS standard (IS:383).

### Compliance to CREP Action Points

- i) All the Coke Oven Batteries are complying with PLD, PLL & PLO stipulations. Out of 32 installed Coke Oven batteries, 9 batteries have been re-built since 2003 and 2 batteries are presently under rebuilding. Moreover, in order to maintain the good health of the Coke Oven batteries, need based cold repair and hot repair of the batteries are done across the SAIL plants.
- ii) All plants achieved 30% reduction in the fugitive emission in Steel Melting Shops. To achieve the targeted 100% reduction, Secondary De-dusting facilities at the existing BOF shops are being set up in all the plants. New BOFs at BSP, RSP and ISP are coming up with in-built secondary de-dusting facilities.
- iii) 17 nos. CDI/CTI facilities are in operation across SAIL plants. New BF#5 at RSP and new BF#5 at ISP have been commissioned along with in-built CDI facility. The new blast furnace, at BSP (BF#8) is coming up with CDI facility.
- iv) Utilisation of BF slag was 92% during Apr.-Nov.'14 and full utilisation shall be achieved after the completion of on-going projects. Utilization of BOF slag was 81% during Apr.-Nov.'14. There is technological limitation in recycling/ reusing of BOF slag, however efforts are being made to enhance utilisation.



- v) Plants are disposing the hazardous wastes generated either through common disposal facility or in captive Secured Landfills (SLFs) in the plant. Inventorisation of the hazardous wastes generated in the plants has been done.
- vi) The specific water consumption ( $\text{m}^3/\text{tcs}$ ) at the integrated steel plants during April to Nov.'14, against CREP norm of  $5 \text{ m}^3/\text{tcs}$  for long product plants and  $8 \text{ m}^3/\text{tcs}$  for flat product plants, are as follows:

Unit:  $\text{m}^3/\text{tcs}$

BSP	DSP	RSP	BSL	SAIL (4 plants)
CREP Norm: $5 \text{ m}^3/\text{tcs}$		CREP Norm: $8 \text{ m}^3/\text{tcs}$		—
2.80	3.79	4.82	4.42	3.84

All the parameters are meeting the norms at the outlet of COBP effluent treatment plants.

- vii) Online stack monitoring systems have been installed at major shops. Ambient Air Quality (AAQ) monitoring systems have also been installed at various locations at the plants.
- viii) Proper records of the operation of the existing pollution control equipment are being maintained.
- ix) Following important clean technologies are being installed during the on-going modernization projects: Coke Dry Quenching at Coke Ovens, Top Pressure Recovery Turbines at Blast Furnaces, 100% Continuous Casting, Waste Heat Recovery from Blast Furnace Stoves and Sinter Cooler, Gas based Power Plants etc.

## Implementation of Environment Management System

EMS linked with ISO-14001:2004 was implemented at CFP, Chandrapur and at two Warehouses of CMO at Ahmedabad and Ghaziabad during 2013-14. Implementation of EMS-ISO 14001:2004 has been taken up at following units during the 2014-15:

- Alloy Steels Plant
- Barsua Iron Mine
- Two warehouses of CMO (viz. Delhi and Vizag)

## Greenery and Eco-restoration of degraded lands

- During 2014-15 (till Dec. 2014), more than 1.78 lakh saplings were planted at the SAIL plants/ mines.
- A project on restoration and rehabilitation of degraded ecosystems is being carried out at Purnapani mine where 25,000 saplings have been planted, covering an area of 18 acres, during 2014-15. This includes casualty replacement plantation also. Pisciculture had been put into practice in five abandoned quarries filled with water.
- The sustainability project on Biodiversity Conservation &  $\text{CO}_2$  Sequestration at Bolani Mine is being implemented by SAIL in collaboration with the Delhi University and the Ambedkar University, Delhi. The project is in its third year of implementation and during the year, over 1,15,000 saplings of native tree species have been introduced and a map of  $\text{CO}_2$  sinks and sequestration potential is also being created.

## Bio-sequestration of $\text{CO}_2$

- For reduction of  $\text{CO}_2$  emission and sequestering the generated carbon black into the system, SAIL is assessing its carbon footprint in one hand and potential of sequestration of  $\text{CO}_2$ , through its existing biotic resources, on the other. A project has been taken up to explore the possibility of bio-sequestration of carbon dioxide generated from one of its plants (RSP) by using photo-synthetically efficient tree species. This also includes setting up of a pilot project, in association with the carbon sequestration service provider, viz. M/s TFRI.

## Non-conventional energy sources

- 160 KWP off Grid PV System has been installed at the Roof Top of Burnpur Hospital, IISCO Steel Plant during November, 2014.



### Zero Discharge Initiatives

- SAIL plants have taken initiative for recycling the treated effluent from their outfalls back into the process, as a step towards zero discharge.
- In this regard, BSP has already placed order for installation of system for recycling of water from one of its outlets (Outlet #B).

### 7.3 Rashtriya Ispat Nigam Ltd. (RINL)

#### Measures taken/being taken for reduction in Energy Consumption (14-15)

- Commissioned 20.6 MW waste heat recovery system on sinter straight-line cooler( NEDO Model Project) of sinter machine 1 & 2 in July'14
- Synchronized Top Recovery Turbine of Blast Furnace - 3 for power generation from BF gas pressure on 6th Oct'14
- Replacement of Air Recuperator in F/C-2 of LMMM
- Replacement of Gas Recuperator in F/C-1 of MMSM
- Engaged M/s National Productivity Council to conduct Mandatory Energy Audit as per Energy Conservation Act-2001 to identify potential areas for improvement.
- Commissioned Stream 3 at Coal chemical plant to handle additional capacity of Coke oven gas, which shall result in Benzol yield improvement

#### Energy conservation plans under progress

- Installation of Pulverized coal injection in Blast Furnace 1 and BF-3
- Commissioning of LD gas recovery from SMS 2
- Stabilization of Power generation from waste heat of hot sinter from straight line cooler at Sinter plant no 1
- Stabilization of Power generation from TRT of BF 3



*Excellent Energy Efficient Unit Award by Confederation of Indian Industry to RINL*





## Energy Consumption (Gcal/tCS) & CO<sub>2</sub> Emissions(Tons/Tcs)

Year	SEC (Gcal/tCS)	CO <sub>2</sub> emissions (Tons/tCS)
2014-15 ( Till Dec'14)	6.42	2.86
2013-14	6.19	2.66
2012-13	6.31	2.66
2011-12	6.06	2.61

## Waste Heat Recovery Systems ( Apr-Dec'14)

Energy Saving Facility	Units	Energy Recovered	Boiler Coal Saved (tons)	Reduction of Co <sub>2</sub> Emission(Tons)
Total volume of LD Gas recovered at LD Gas recovery plant	MNCum	189.522	101331	159765
Total power generated at Back Pressure Turbine Station (BPTS)	MWH	126972	101578	160154
Total power generated at Gas Expansion Turbine Station (GETs)	MWH	21510	17208	27131
Total power generated from Waste heat recovery of Sinter plant straight line cooler(NEDO project)	MWH	1448	1158	1826

(MNCum-Million Normal Cubic Meters, MWH-Mega Watt Hours)

## Usage of By product gases in Thermal Power Plant ( Apr-Dec'14)

Name of Fuel used in TPP	Units	Value	Boiler Coal Saved(tons)	Reduction of Co <sub>2</sub> emission(tons)
Coke Oven Gas	MNcum	312.273	451547	711939
BF Gas	MNcum	2074.14	502634	792487

## Environment Management

- Adoption of EMS ISO: 14001
- Clean Technology initiatives
- Plantation
- Zero Discharge

## 7.4 NMDC Ltd.

The Company has been accredited with ISO 14001: Environmental Management System Certification in respect of NMDC's four major projects i.e., Bailadila Dep-14/11C, Dep-5,10&11A, Donimalai and Diamond Mining Project, Panna. NMDC is in the process of integrating EMS ISO14001:2007, with ISO 9001:2008 and OHSAS 180001:2007 and SA 8000:2008.

In compliance with GoI Department of Public Enterprises, New Delhi guidelines Sustainable Development for CPSE's for the purpose of performance evaluation under MoU system, NMDC has chosen SD projects / activities such as Bio-Diversity Survey & Conservation Plan, Energy Management, Carbon Management, Water Management, Soil and Water Conservation Training on SD for employees .

### Environmental Monitoring and Pollution Control Measures

In order to ensure pollution-free environment, NMDC has built the following programmes into the day-to-day working of the mines:

- Environmental norms as laid down by the Ministry of Environment and Forests, and the State and the Central Pollution Control Boards are meticulously followed.
- Regular physical monitoring for all environmental parameters, like micro-meteorology, ambient air quality, surface and ground water quality and ground water levels, work zone and ambient noise levels and soil quality.
- Detailed Bio diversity conservation studies, carbon foot print, Energy audits.
- Environment up gradation works like massive afforestation, reclamation of waste rock dumps and mined out areas.
- Disaster Management Plans for the tailing dams at the projects.
- Protection measures for explosives' magazines at the projects.

### Waste Dump Management

- Waste dump at stock pile at Bailadila Deposit 5, 10&11A and Donimalai project are stabilized with geo coir matting.
- The over burden dumps at central block at NMDC project are vegetated scientifically with native species to prevent erosion and surface runoff.

### Plantation

- 50,000 to 75,000 saplings are planted every year at NMDC projects.
- More than 16 lakhs saplings have been planted in NMDC projects till date.
- Soil and water conservation works are implemented through forest department.

### Energy Conservation

- Energy audits were undertaken for all the projects. Audit recommendations are being implemented for energy conservation.
- LED laminations are being installed above.
- Power factor is being maintained above 0.96 with static capacitors on HT and LT side.
- Solar street lights are been installed under CSR initiatives.
- Solar lanterns are distributed in rural areas under CSR initiatives.

## 7.5 MECON Ltd.

MECON Ltd., being a consultancy organization, does not operate/ manufacture any large scale plant or machinery themselves which call for exclusive efforts on Pollution Control and Waste Management. However, the efforts made by MECON for its clients which address these important issues are highlighted in the following paragraphs:

- Successfully executed and commissioned the NEDO model project as detail engineering consultant for the 20.6 MW Sinter Cooler Waste Heat Recovery System for the 2 nos. Straight line sinter cooler at RINL, Vizag.
- Awarded an assignment from Coal India Limited for carrying out bench marking of electrical cum-diesel energy consumption and energy audit for ROHINI OCP (2.0 MTPY) through scientific investigation as per General Guidelines and standard of Bureau of Energy Efficiency (BEE).



- Received orders, from both public and private sectors, for preparation of EIA/EMP reports for their new plants / expansion of plants for Raw Material Division.
- Prepared, environmental norms and standards for sponge iron plants in the country in association with Central Pollution Control Board (CPCB).
- Prepared environmental standards for Sinter Plants.
- Developed Comprehensive Industry Document (COINDS) and Environmental Standards for Re-rolling Mills.
- Developed guidelines for Management of Solid & Hazardous Waste generated in Integrated Iron & Steel Industry,
- Developed, guidelines for controlling fugitive emissions in integrated Iron & Steel Plants.
- Developed, emission factors for various units of an Integrated Iron & Steel Plant.
- Completed a prestigious assignment for providing consultancy services for implementing ISO 9001 & ISO 14001 in five model unit each in Steel Re-rolling Mills in India from UNDP/GEF, Ministry of Steel, Govt. of India.
- Got an assignment received by MECON is for preparation EIA/EMP reports for 4 x 700 MWe Mahi Banswara Rajasthan Atomic Power Project & 2 x 700 MWe Kaiga Atomic Power Project which is under Nuclear Power Corporation of India Limited (NPCIL).
- Received a work order from a joint venture company of SASOL SUNFUEL, South Africa and Tata Group (Tata Steel, TCE) for environmental clearance for their proposed 30 Mt coal mine at Talcher, Odisha. Coal from the mine will be converted to liquid fuel through energy efficient CTL technology.
- Got accreditation from National Accreditation Board for Education and Training under Quality Council of India, for preparation of EIA/EMP reports and environmental engineering activities in 16 (Sixteen) sectors.

## 7.6 MOIL Ltd.

### Energy Management

Conservation of Energy: MOIL has been adopting various measures for energy conservation which includes system improvement by improving the efficiency of existing equipments; for example replacing conventional method of starting the motors installed for various applications in the mines with improved versions i.e. Soft starters, VFD, D.C. Drive etc. Similarly, replacing energy eater equipments with energy efficient equipments as well as introducing new / modern technology in line with the national policy of energy conservation.

In order to promote non-conventional energy resources, MOIL has installed 4.8 MW Wind Energy Farm on Nagda Hills and 15.2 MW Wind Energy Farm on Ratedi Hills at District Dewas in the state of Madhya Pradesh. It conserves the energy & is a step towards non conventional source of energy for pollution free environment.

KWH Per Ton of Production	2011-12	2012-13	2013-14	2014-15 (Upto Dec 2014)
Manganese Ore	18.33	18.75	21.11	20.95
EMD Plant, D.B. Mine	2625.00	2889.00	2901.00	3020.00
Ferro Manganese Plant, Balaghat Mine	3155.00	3132.00	2987.00	2790.00
Saving in carbon emission for 4.8 MW Wind Energy Farm (Ton)	8250.00	9290.00	8045.00	3810.00
Saving in carbon emission for 15.2 MW Wind Energy Farm (Ton)	21764.00	23927.00	22044.00	9897.00

### Environment Management

MOIL Limited has obtained Environmental clearances in respect of all the mines and all the sand ghats. MOIL Limited have also obtained "consent to establish" and "consent to operate" for all the Units from concerned State Pollution Control Boards.

MOIL Limited for it's all the Units have formulated Environment Management Plans. The detailed environment monitoring programme drawn for implementation which includes:

- Air pollution control measures.
- Noise pollution control measures
- Water & waste water management
- Solid waste management
- Green belt development
- Social welfare measures
- Occupation safety & health management
- Environment monitoring programme
- Expenditure on the environment management plan.

MOIL Limited is complying with all the conditions stipulated in Environment Clearances issued by the MoEF and consent to establish/operate issued by the concerned SPCBS. Similarly, company is observing all the Norms / Regulations in respect of Stack emission, Fugitive emission, ambient Air quality, Solid waste generation & its management. In MOIL stacks are provided at 1) Ferro Manganese Plant and 2) Electrolytic Manganese Dioxide Plant, Dongri Buzurg Mine. The emission from stack and fugitive emission for ambient air quality is quarterly monitored and the emissions from the stacks are well within the norms. To keep emission of pollution under control, Ferro Manganese Plant, Dongri Buzurg Mine is provided with bag filter and scrubbers are provided at EMD Plant, Dongri Buzurg Mine.

Environmental Protection by Afforestation: MOIL Limited have carried out excellent plantation work on the waste rock dumps by adopting integrated bio-technological approach (IBA) in consultation with NEERI, Nagpur.

The integrated biotechnological approach (IBA) envisages the use of industrial wastes like pressmud from sugar mill industry as an organic amendment for the spoil & use of nitrogen fixing bacteria like Rhizobium and Azotobacter which can tolerate high manganese concentration and VFM fungi. The use of bio-fertilizers reduces the environmental risk of using chemical fertilizers. Plantation of selected species was carried out by pitting method and plants were inoculated with specific bio-fertilizer cultures.

The Company is doing massive plantation for protecting the environment in and around the mines to achieve ecological balance. MOIL has planted more than 18.46 lakhs trees in all the mines over the last recorded 22 years with an average 75% survival rate of plants.

### 7.7 KIOCL Ltd.

Energy consumed in last 2 years and April to November 2014 is as under:

Year	2012-13	2013-14	2014-15 (upto Dec. 2014)
Power consumed Per ton of pellets	66.56 Kwh/T	62.56 Kwh/T	70.22 Kwh/T
Heat consumption per tone of pellets in '000 K calories	250 Kcal/T	243.5 Kcal/T	247.2 Kcal/T

**Energy Management and Conservation Measures:** As a part of Energy management and conservation drive, following measures have been implemented in PP Unit.





## In Port Facilities:

- 25 nos. of 64W LED fitting have been replaced in place of 47 nos. 125W MV fittings in bin locations in Central Stores. Net savings achieved by this modification is Rs 62,481/- per year.
- Replacement of two nos. of 22KW motors (out of 4 installed drives) with 15KW motors in Process Conveyors is under progress. Two nos. have already been replaced.
- By operating of the process in non peak hours and stopping during peak hours a saving of Rs 107.6 lakhs has been achieved till September 2014 (for the year 2014-15).
- LED fittings are being procured for replacement in other areas also in the plant as a part of ongoing and continuous efforts at energy conservation.

## In Pellet Plant:

- 20 nos. of 64W LED street lights have been replaced in place of 150W street lights in PP area. Net saving achieved is Rs.29, 721/-per year through this effort. Procurement of more LED fittings has been initiated for future use.
- High efficiency motors are being procured for use in Reclaimer no. 03 bucket wheel drive, compressor & conveyors to replace old motors.

## In Captive Power Plant:

- 4 nos. of 100W induction lamps are being procured for replacing 16 nos. of 70W HPSV lamps in generation room. Expected saving is Rs 37960/- per year.

## Environment Management

The Company is according high priority for environmental protection and taking requisite measures for pollution control as per the norms. The initiatives and continued efforts on the environmental management and pollution control measures for the current year are as under:

- MoU signed on 11.01.2014 to develop "Kudremukh Tree Park" for the conservation of rare and endangered plant species of Western Ghats at Pilikula Mangalore as a part of commitment made to develop green belt and conservation of wide variety of plants. As on date, planting of 2500 sapling of RET species has been completed and so far the amount spent on this project is Rs. 15,67,000/-
- The water sprinklers already installed in the plant premises are being maintained and dust is suppressed on continuous basis.
- Low sulphur furnace oil is being used for Captive Power Plant.
- The upgraded STP is being maintained and the entire quantity of treated effluent is being recycled in the process. The runoff water, floor washings and spillages are being recycled.
- During the "Swachh Bharath Mission", cleaning campaign was taken up in the Company premises, township and surroundings. Also job of constructing toilets for the needy schools has been taken up.
- The standard norms prescribed by KSPCB in respect of air and water quality monitoring are being adhered to in all area of work.
- The company is having valid ISO 14001, ISO 9001 & ISO 18001 Certifications

## 7.8 JSW Steel Ltd.

### Energy and Environment Management Highlights - [2014-15]

The state of art production facilities are equipped with necessary facilities for reduction in energy consumption & control of environmental pollution. Some of the salient features are:

- Coke Dry quenching.

- Coke pushing emission control equipment.
- Cast house fume extraction system.
- Top gas recovery turbine.
- Secondary fume extraction system for converters.
- Granulation of Iron and Steel making slag.
- Micro Pelletization
- Mill Scale Briquetting

### **Energy Initiatives/ Initiatives in FY 2014-15 (till Nov 2014)**

- Installed 55 MW Captive Power Plant - BF Gas Based.
- Installation of High efficiency Top Gas Recovery Turbine at Blast Furnace plant.
- Replacement of LDO and RLNG by Coke Oven Gas in Tunnel Furnace.
- Replacement of Propane by RLNG in SMS Co-jet System
- Replacement of LDO by Regasified Liquefied Natural Gas (RLNG) in Boilers
- Installed metal recovery plant for Electric Arc Furnace Slag processing. Approximately 5 to 7 % of metal are recovered and utilized for Hot Strip Mill Plant as raw material.
- Setting up centralized energy management cell to further strengthening the energy efficiency by monitoring and optimizing the utilization of waste gas, fossil fuel and electricity consumption.
- BF Gas charging to Coke Oven battery.
- Replacement of NG in SIP with HOT COG.
- Reduced solid fuel rate i.e. Coke Breeze consumption at Pellet plant from 4.8 t/tp to 2.88 t/ tp, i.e drop of 40.7%.
- Reduced solid fuel rate in Corex by 2.6 % & also reduced power rate by 8.2 %.
- Reduced Blast Furnace gaseous heat rate by 3.58 %.
- Reduced power rate in SMS by 5.24 %.
- Reduced power consumption in HSM by 1%.
- Commissioned De-Aerator at 3\*25TPH boiler which reduces the oxygen percentage in boiler & maintains the constant temperature of feed water, Overall efficiency increases.
- Commissioned DRI gas line to SBU I, SBU II, CPP3 & CPP4 for utilization.
- Commissioned 20TPH BF gas fired process steam boiler.

### **Environment Initiatives**

- Commissioned new secondary de-dusting system for blast furnace cast house.
- Used slag from energy optimization furnace in internal road making.
- Used 12-20 mm EOF slag in sinter plant for hearth layer instead of iron ore fines.
- Used EOF crushed dry slag as coolant for maintaining hot metal temperature in the furnace instead of iron ore lumps.
- Used BF dry slag as ballast for internal railway siding and also for concrete road replacing Ballast.

Information on CPCB / SPCB Norms/Regulations/EMS systems and plantation projects

- JSW Steel is in compliance with CPCB / KSPCB standards for stack emissions except in the case of Sinter plants, where the emissions are marginally high. As per approved from KSPCB , modification of ESP in SP1&2 completed and VM less than 4% in Sinter plant ensured.



- JSW Steel strictly complies with CREP requirements. All best adoptable technology for steel making has been incorporated.
- JSW Steel is in compliance to ISO: 140001 as the Environmental Management System was recertified by TUV Rhineland. Currently there are over 180 internal auditors for auditing various facilities. Further initiative has been taken to incorporate EMS systems in the new units.
- Till date 1.5 million trees has been planted and the trend is still continuing.

Indicators	UOM	2011-2012	2012-2013	2013-2014	2014-2015 (April 14- Nov 2014)
Specific Energy Consumption (Vijayanagar Works)	GCal / tcs	5.76	6.77	6.47	6.74
Specific Energy Consumption (Dolvi Works)	GCal / tcs	6.547	6.516	5.919	6.052
Specific Energy Consumption (Salem Works)	GCal / tcs	-	7.277	7.194	7.070
Specific CO <sub>2</sub> Emissions (Vijayanagar Works)	tCO <sub>2</sub> / tcs	2.63	2.53	2.59	2.583
Specific CO <sub>2</sub> Emissions (Dolvi Works)	tCO <sub>2</sub> / tcs	2.2	2.18	2.128	2.229
Specific CO <sub>2</sub> Emissions (Salemi Works)	tCO <sub>2</sub> / tcs	2.35	2.51	2.52	-

## 7.9 Tata Steel Ltd. (TSL)

Highlights of reduction in energy consumption and low Carbon usage technologies 2014-15 (Apr to Dec 2014):

Indicators	UOM	2011-12	2012-13	2013-14	2014-15 (Apr-Dec)
Specific Energy Consumption	Gcal/tcs	6.088	6.083	6.017	6.118
Specific CO <sub>2</sub> emission	tCO <sub>2</sub> /tcs	2.50	2.53	2.43	2.44
Effluent Discharge	m <sup>3</sup> /tcs	4.6	3.6	2.3	2.7
Specific Water Consumption	m <sup>3</sup> /tcs	5.8	5.9	5.6	5.8
Dust Emission	Kg/tcs	0.79	1.00	0.88	0.61

Energy efficiency enhancement through energy conservation is the principal lever for abatement of GHG emissions. Specific Energy Consumption and Specific CO<sub>2</sub> emission are being maintained during 2014-15 through process control despite constraints in raw material availability and variation of quality.

New energy efficient unit commissioned during 2014:

- Stamp Charged 0.7 mtpa Coke Oven Battery No.11
- Computerised combustion control at the new Coke Oven Battery.
- Waste Heat Recovery at the Sulphur Recovery Unit in New By-product plant.
- Power generation through three Top gas pressure Recovery Turbines (TRT) is @ 24.4 MW during 2014-15 against 23.4 MW in 2013-14.
- Efficient use of by-product gases for Power Generation has led to
- BF Gas flaring @ 4.4% of generation during 2014-15 against 4.0% in 2013-14 and World Steel Association's Benchmark of 5%.

The company has a registered CDM project titled "Top Gas Pressure Recovery based Power Generation from 'G' Blast Furnace". Two verifications have been completed and 34,363 CERs have been issued. Third verification is in progress. No CER traded yet.

Tata Steel is recognized as leader in Climate Change by CDP 2014 in Oct 2014. Its rating (Climate Disclosure Leadership Index, CDLI = '97' and Climate Performance Leadership Index, CPLI = 'B') is highest amongst global steelmaking companies and Material sector companies in India. The company is also recognized as 'Climate Action Member' by World Steel Association.

### Environment Management Highlights for 2014-15 (Apr to Dec 2014)

- New Air Pollution Control Equipments with tighter specifications (ESPs designed for 30 mg/Nm<sup>3</sup> & Bag Filters designed for 10 mg/Nm<sup>3</sup> emissions) have been installed during 2.9 mtpa expansion. The same is being adopted for the upgradation of existing large population of pollution control equipment consisting of Bag Filters and ESPs.
- Completion of capital projects, adoption of strategies to overcome shortage of in-house capability to maintain pollution control equipment and in-house improvement projects have resulted significant improvement in stack dust emission.
- 4 projects out of total 18 schemes completed to reduce stack dust emission in addition to completion of 3 out of 22 upgradation projects to reduce fugitive dust emission.
- Water management infrastructure is under augmentation with the aim to achieve Zero Effluent Discharge. The master project is being commissioned in phases. Phase-I Central Effluent Treatment Plant is being commissioned.
- Above utilisation figures include LD Slag stored for future usage. Developed 50-acre plot at Galudih for construction of processing plant for LD slag based products in collaboration with experts. Various initiatives for improving utilization of LD Slag are:
  - ❖ Pursuing collaboration of its use in Cement making with cement makers
  - ❖ Pursuing collaborative initiatives with Govt. & Industry Bodies like IRC, BIS, RDSO, ICAR, Ministry of Steel, FICCI, etc. for developing usages of LD slag.
  - ❖ Received accreditation from Indian Road Congress for conducting 2-year trial of its application in road construction
  - ❖ Trial as soil conditioner is in progress with ICAR and state government
  - ❖ Rural Works Department of the state government allowed slag in construction of rural roads under "Pradhan Mantri Gram Sadak Yojna"
  - ❖ Trial taken for its utilization in cast-house of Blast Furnace replacing sand
  - ❖ Trials being pursued in underground coal mine stowing replacing sand
  - ❖ Production of Pavement blocks in small scale
  - ❖ R&D pilot scale project is being pursued to reduce phosphorus content in slag so that consumption of LD Slag in sinter plants can be increased.
- The Environment Management System of the Steel Works is certified under ISO 14001. On-line Internal Audit Management System has been introduced during the year.
- Renewable Energy
  - ❖ Solar Photo-Voltaics (including Roof-top arrays) and efficient LED lights installed for street & office lighting. AAQMS, Meteorological station and some of traffic signals are fitted with;
  - ❖ Light-pipes installed to maximise usage of natural daylight;
  - ❖ Solar Thermal geysers in Guest Houses and Hospitals.





## 7.10 Bhushan Steel Ltd.

### Energy Conservation Initiatives

- High Pressure Ammonia Liquor Aspiration System (HPLA) in coke ovens.
- Sinter Cooler Waste Heat Recovery Systems.
- High Top Pressure and Top Recovery Turbine (TRT) in Blast Furnace.
- Cast House Slag Granulation System.

### Environment Control Measures

- All ESP's are maintained effectively as per the standard operation procedure to keep the emission within the norms as specified by Pollution Control Board.
- Achieved zero discharge by installing appropriate Effluent Treatment Plant for proper treatment of effluent & recycling back.
- Slag from SMS is processed through Slag Granulation Plant to make the precious slag ball for road making after removing of magnetic percentage. The magnetic portion is being used in sinter plant.

Total Specific Energy Consumption for the Year 2013-14 (Gj /Tcs) :

Specific energy consumption for the year 2013-14					
Unit	Total Production	Specific energy consumption for production of 1 Ton of Product	Total crude steel production	Consumption ratio for production 1 of TCS	Specific energy consumption for production 1 of TCS
	(Ton)	(GJ/Ton)	(Ton)	(Ton)	(GJ/Tcs)
DRI	421,089.00	24.13	1,373,132.77	0.31	7.40
SINTER	1,867,111.00	1.99		1.36	2.70
LIME PLANT	166,594.11	3.01		0.12	0.37
COKE OVEN-I	738,883.69	7.06		0.54	3.80
BLAST FURNACE-I	1,083,613.00	17.07		0.79	13.47
CONARC	1,145,775.78	2.54		0.83	2.12
BOF	160,578.00	1.22		0.12	0.14
INDUCTION Furnace	39,043.84	3.32		0.03	0.09
EAF	27,735.14	5.08		0.02	0.10
Grand Total					30.19

## CHAPTER-VIII

### DEVELOPMENT OF INFORMATION TECHNOLOGY

#### 8.1 Introduction

The Ministry of Steel and the PSUs under it constantly endeavour to be updated on matters relating to IT infrastructure, development and applications.

- The Computer Centre in the Ministry is equipped with Windows 2012 Server operational on 24X7 basis; state of the art client systems and Local Area Network (LAN) equipments such as switches and routers, which serve as a backbone for accessing information on Ministry-wide Local Area Network (LAN) in the Ministry. Wi-fi setup has been established by NIC in the Ministry for the officials of the level of Deputy Secretary and above.

#### E-Governance applications

- AADHAR based biometric attendance system has been implemented in the Ministry.
- Personal Corner for employee's salary statement, GPF & Income Tax statements. Bulletin Board Services for Office Memoranda, Office Orders and Office Circulars etc. are available on the intranet portal.
- As a part of E-Governance plan, the following Web Based systems have been implemented in the Ministry:
  - ❖ Right to Information Act - Management Information System (RTI-MIS) - facilitates monitoring of Requests and Appeals received under RTI Act 2005. The system is implemented in the Ministry and its PSUs.
  - ❖ Centralized Public Grievance Redressal & Monitoring System (CPGRAMS) has been implemented for facilitating Public & Pensioners Grievances in the Ministry and its PSUs.

#### Ministry's Official Website

- The bilingual web-site for Ministry of Steel (<http://steel.gov.in>) is operational.
- Ministry's E-Book has also been prepared and uploaded on the website of the Ministry

#### 8.2 Steel Authority of India Ltd. (SAIL)

The business of SAIL is carried out on its robust Information Technology (IT) infrastructure which has relentlessly withstood the testing times and proven their robustness time and again.

- SAIL with its continuous and focused IT endeavors has been able to bring the business operations of four out of five Integrated Steel Plants i.e. Bhilai Steel Plant, Durgapur Steel Plant, Bokaro Steel Plant, Rourkela Steel Plant as well as its marketing setup i.e. Central Marketing Organization within the ambit of ERP.
- A comprehensive ERP Implementation Roadmap has been finalized to cover the remaining plants/ units of SAIL including measures to strengthen existing ones within a time span of three years. The status of business on ERP is as follows:-
  - ❖ Over 99% of entire sales volume is currently processed through ERP.
  - ❖ 91% of production transactions are covered in ERP.
  - ❖ Total e-procurement is 71% of the order value for five ISPs.
- Online viewing of payment status of bills by suppliers/vendors & Purchase Orders details above Rs.50 lakhs by Plants/Units made available to bring in more transparency.



- Maximization of online money receipt of payments through SBI which has benefitted SAIL in faster cash realization & elimination of manual errors.
- Transparency in the Executive Performance Management System (EPMS) was introduced which has the facility for online representation by all executives upto E7 & online Appeal Redressal by the Appellate committee. Display of Appraisal Ratings for all GMs and EDs through EPMS system.
- Balance Score Card (BSC) system with a provision for multiple Score Cards for individuals, implemented for EDs, GMs & DGMs of SAIL.

## 8.3 Rashtriya Ispat Nigam Ltd. (RINL)

RINL considers Information Technology as the vital enabler in improving the overall organizational efficiency, customer satisfaction, productivity, transparency and cost effectiveness. The year 2014-15 has been a year of landmark in RINL's Information Technology growth as ERP (Enterprise Resource Planning) has been made ready for implementation. The highlights of IT initiatives and achievements during the year 2014-15 are enumerated below:-

### Standards

Information Security Management System (ISMS) was taken up to protect critical data from threat. Requirements like Policies/SOPs/Active Directory implementation, Risk mitigation etc. were fulfilled for ISO 27001 certification. Biometric system and CCTVs were installed at Data Centers.

### Big Data and Mobility

- Bulk SMS services with application programming interface were started in RINL. Mobile Messaging for Occupational Health nominations was done.
- All Stockyards' data were captured for Big Data in Marketing.

### Enterprise Applications

- Enterprise Resource Planning went live. The entire infrastructure was made compatible for ERP.
- DOP online, first of its kind for online search of Delegation of Power, was deployed.
- Enterprise Portal for Asset Management a unique portal with Dashboard, 360 degree view of equipment, Forum etc. was launched.
- Enterprise Learning Management System (ELMS), a new web based application for training on demand was launched in association with Technical Training Institute.

### Process Control Systems

- Hot Stove Model in BF-3 was successfully stabilized.
- Manufacturing Execution System (MES) for 6.3MT stage is being implemented in line with expansion.
- MES is also being implemented to take care of existing units.

### Web Applications

Several portal / web applications were developed during the period which includes:

- SC & ST Cell Portal,
- Blood Donation Management System
- Price diary system and Demand Survey for new products
- The Common Contractors Registration System (CCRS)

### Business Applications and Shop Level MIS

- Refractory Data Management System and Comprehensive Delay Analysis System were deployed.
- MISs for ISO Audit, DNW and Utilities departments were launched.
- Safety Information System and Supplier Gate Pass System were deployed.

### Infrastructure & Statutory Projects

- In line with IB Guidelines Vulnerability Assessment for Level-1 & Level-2 Systems was taken up and the party has been chosen for implementation.
- Action Taken Report was submitted to DOT, Govt. of India regarding IPv4 to IPv6 migration.

## 8.4 NMDC Ltd.

- Wide Area Network (WAN) has been converted to Managed Level protocol switching (MPLS) from point to point leased line connectivity between production units to Head Office.
- Check point 12400 Unified Threat Management (UTM) firewall in High Availability has been installed with following features at gateway level for Data Center appliances:
  - ❖ Firewall
  - ❖ Application Control
  - ❖ Instruction Prevention and Detection
  - ❖ URL Filtering
  - ❖ Anti-Virus
  - ❖ Anti-Spam
  - ❖ Identity awareness
- Human Resource Management System and Financial Accounting System is being migrated from oracle application server to web logic server under high availability and improved response to end users.

## 8.5 MOIL Ltd.

MOIL has set-up a full-fledged Systems Cell in order to ensure an effective Computerization of all the functional areas of the Company. In order to ensure an adequate IT infrastructure, Steps taken by the System Department are as under:

- Installation of 450 Nos. of Computers, out of which 250 Computers are at Head Quarter and 200 Computers are distributed in Maharashtra and Madhya Pradesh Mines.
- Designed, Developed & Implemented Computer based applications to meet Computing & Data Processing needs of the various Departments viz, Sales & Marketing, Purchase & Stores, Employee's payment and HR, Production & Quality and Cost & Finance of the Company.
- Ethernet based Local Area Networks (LAN) on Windows-2003 R2 platform is in place at Head Office, Nagpur. LAN has also been designed and developed at all the nine mines of the Company.
- Design, Develop & Hoisted a dynamic internet website on NIC Server.
- Design, Develop & Hoisted a dynamic intranet website on in-house MOILNET Server. As a security measure we recently have installed CISCO Firewall in the Networking System.
- For effective sharing of databases/ information and other resources on regular basis all the remotely located production units and HO are connected through VPN over Leased line, Broadband and VSAT.





- For continuous knowledge acquisition, e-mailing and for inter unit data transfer facilities all the concerned officials of Head Office have been provided with internet connection through a 8 Mbps (1:2) internet leased line on OFC. All the mines are provided with leased line/broad band internet connections.
- All Procurement of goods valuing Rs. 10 lakhs and above is through e-procurement portal of MSTC to bring transparency in procurement process.
- Recently Company has taken necessary initiatives for Implementation of ERP in the Company and this is expected to be live by March-2016.

## 8.6 MSTC Ltd.

The developments at MSTC Ltd as far as IT infrastructure is concerned, are as under:

- Achieving CMMI Level 5 Appraisal under process
- Renewal for STQC Certification on e-Procurement service under Process
- Maintaining VPN connectivity among Regions and Branches
- Maintaining ISO 27001:2005 certification for e-Commerce.
- Maintaining ISO 9001:2008 certification.

## 8.7 Ferro Scrap Nigam Ltd. (FSNL)

- The various departments of corporate office and units have been provided with computers. The areas related to payroll, financial accounting, materials management have been computerised.
- MIS is being generated out of application packages.
- Units are linked up through internet connections.
- Fulfilment of statutory compliance of the company such as PF, income tax, tendering, e-filing, etc.
- Tenders are hosted on Company's website - fsnl.nic.in
- SAP B1 with Add-ons (100 licenses) for modules, HR & Payroll, F&A, Provident Fund, MM including Inventory Management, Operation & Maintenance, Fixed Assets, Project Module & Law Modules, costing modules are under final implementation and data pertaining to different department is being entered by FSNL employees of units and corporate office to prepare the accounts for 2014-15 in SAP and in the existing system being used in FSNL.
- IPv6 Complied Server has been installed at corporate office and SAP B1 has been installed and units are accessing through internet connection.
- Firewall Fortigate 80C has been installed at corporate office.
- IPv6 Complied CAT 6 Local Area Networking has been installed at corporate office.

## 8.8 Hindustan Steelworks Construction Ltd. (HSCL )

HSCL has its own web site at [www.hscl.co.in](http://www.hscl.co.in) through which it conducts its business activities in a transparent manner and complies with all statutory guidelines on Right to Information Act.

HSCL has more than 25 units spread all over the country. All the units maintain separate accounts of receipt and expenditure. Finally, Accounts of individual units are compiled for arriving at the overall accounts of the company. To streamline the financial operations and control of the company, the following Financial Systems have been introduced:

- Centralized Cash Management System (CMS)
- Contract Reporting Management System (CRMS)
- Profitability Reporting Management System (PRMS)
- Billing Management System (BMS) and
- Material Management System (MMS).

### 8.9 MECON Ltd.

MECON's offices at Ranchi, Bangalore and Delhi are equipped with state-of-the-art hardware, network and various Engineering softwares like REBARCAD, TEKLA, AERMODVIEW, STAAD.PRO, AUTOCAD, ETAP, CAESAR, PVLITE, AUTOPLANT, PDS etc. that facilitate quality design and timely completion of various projects.

MECON is using different project management software like Primavera, MS Projects and in-house developed project management software for planning and monitoring of different ongoing projects.

In-house developed web based applications like HR, Corporate Finance, Project Finance, MIS, Competency Mapping, e-Archive are in use for day to day activities.

### 8.10 KIOCL Ltd.

The use of IT in KIOCL has been in vogue since its inception in 1976 and spans across all its plants and offices. The main areas of computerization are:

- **Inventory and Materials Management:** The Company is using computerized inventory accounting and control system since 1980s. The design by Canadian mining companies which has unique procedures, forms and the codification with check digits was adopted. Later the System was upgraded and migrated to a web based platform.
- **Finance and Accounting:** The payroll accounting and generation of pay slips were computerized in the 80s. Now all major activities of Finance and accounting system are fully automated on a web based platform with required reporting features. All major payments are done through RTGS.
- **IT- Infrastructure:** The infrastructure hardware and software are periodically upgraded and maintained. The Company has deployed all-IP structured UTP based data networks with a fiber optic backbone at Mangalore and Bangalore. The 8 MBPS leased line at Mangalore and Bangalore and the internet connectivity at Kudremukh provide the VPN and internet connectivity at the locations. The VPN connectivity thus provides a single network access to all the applications through different locations of the Company.
- **Video Conferencing:** The internet leased line and the ISDN connections are used for Video Conferencing at Mangalore and Bangalore. The facility enables the meetings to be held across the locations periodically online.
- **E-Commerce:** Introduction of E-tendering, E-procurement and RTGS has resulted in reduced paperwork, increased transparency and reduced time. The sale of pallets is carried through E-Tender by a Class i/ii RSA/SA agency with SQTC certification. This has reduced the price discovery time considerably. All the procurements above a threshold value are done through e-Tender.
- **Plant Process Automation:** All the plants of KIOCL are fully automated and controlled from the Central Computer Rooms. This has resulted in reduced Manpower requirement, higher Man and machine safety and increased life of the equipments. The data collected through computerized control system is used in carrying out, periodic preventive maintenance, estimation of components life thus resulting in increased productivity.

### 8.11 Bird Group of Companies (BGC)

BGC has taken initiative to publish all tenders/EOI in Companies Corporate Website and Central Public Procurement Portal (CPP Portal). Procedure for Sale of Iron Ore and Manganese Ore is designed through e-auction mode only. Biometric based Attendance System and CCTV based surveillance system is installed at Corporate office. Maintenance of Leave records and processing of salaries is being done through customized payroll system. Tally based Accounting Package is being used to payment vendor bills and different employee entitlements through RTGS and e-payment mode. OMDC is on the process to install the latest technology of satellite imagery to check movement of trucks, machinery & men to prevent any chance of illegal mining once the mines are put in operation including GPS/GPRS backed surveillance system in mines.



## **CHAPTER-IX**

### **SAFETY**

#### **9.1 Introduction**

Safety is an important aspect in functioning of any industry. It is important not only for its employees and workers but also for the environment and the nation. Iron and Steel production being a complex and hazardous activity, needs to prevent injuries and accidents, provide a healthy working environment and guard against all possible hazards and risks to be adequately recognised and taken care of.

#### **9.2 Steel Authority of India Ltd. (SAIL)**

Salient aspects of Safety Management System & Practices in SAIL include the followings:

##### **9.2.1 Management Commitment**

Ensuring accident free working in steel plants has been one of the prime priorities of the SAIL Management, which is committed to achieve the target of 'Zero Accident'.

Safety is monitored at the highest level of management i.e. Chairman and Directors' level as well as by the Chief Executives of respective plants/units to provide impetus on inculcating safety awareness and improving human behavior towards safety. Safety is discussed as first item in all appropriate forums, and directions are issued for adoption of all requisite measures to bring continuous improvement in safety standards.

SAIL is implementing OHSAS-18001, an advanced Safety Management system and they also have an 'Occupational Health and Safety Policy'.

##### **9.2.2 Safety set up in SAIL**

Full-fledged Safety Engineering Department looks after the safety management aspects under respective Head of Works of all Plants & Units of SAIL. At corporate SAIL Safety Organization (SSO), Ranchi also coordinates and monitors the operational/fire safety activities undertaken at different plants/units of SAIL and provides appropriate corporate thrust on safety management at organization level.



*Safety Training in SAIL's Bokaro Steel Plant*



### 9.2.3 Systems & Procedures

- Conformance with Management systems like OHSAS-18001:2007 and SA 8000:2008.
- Safety aspects are incorporated in Standard Operating Procedures (SOPs), Standard Maintenance Procedures (SMPs) and Safe Work Instructions (SWI) and adhered.
- Introduced imparting Modular Training programme on 'Fatality Risk Control' at SSO and facilitating plants / units to organise similar programme after identifying thrust areas.
- Work permit system followed for safe execution of jobs.
- Protocols framed and adhered for Capital / Major repair jobs.
- Unsafe acts and conditions are identified during preventive inspections/surprise checks and liquidative measures taken and followed up.
- Specific medical examination made mandatory for issuance of Height Pass for Working at Height and also for Crane Operators and Mobile Equipment Operators.
- Inter plant networking in Occupational Safety & Health for coordination and monitoring established by SSO for which NOHSC, BSP is functioning as the Central agency.

### 9.2.4 Safety Audit/ Monitoring

- Safety Audits are conducted at Plants and Units in following manner
  - ❖ Internal Safety Audits by Safety Engineering Deptt. of respective Plants.
  - ❖ Safety Audits by SAIL Safety Organisation associating representatives from sister Plants/ Units
  - ❖ Safety Audits by external agencies e.g. NSC, India, agencies recommended by Regional Statutory Authorities, OHSAS Auditors etc.
- In order to prevent fatal accidents during project & construction activities, Safety audits are being conducted by SSO at project sites of various plants.
- Management review for sustaining accreditation to OHSAS-18001, SA 8000 etc.
- Meeting of 'Heads of Safety' and 'Heads of Fire Services' of Plants/ Units are organised at specified interval.
- APP for Safety and Fire Services activities are formulated for each plant/unit and SSO.
- Round the clock safety surveillance made for all major Capital repair / Shutdown jobs to ensure safe completion of the jobs.
- On-the-spot study of fatal accidents are conducted and compliance of recommendations of enquiry committees are monitored at different levels.

### 9.2.5 Contractor Workers' Safety

High priority has been accorded towards enhancing safety standards at contractor's work areas. 'Project Safety guideline' covering hazards and control measures have been consolidated and circulated by SSO. Concerted efforts are being made to train and educate the persons coming from different socio-economic background to work in an accident free work environment. Guidelines in vogue in this area include safety and penalty clause in contracts, system of site inspections and issue of safety clearance before start of jobs, deployment of safety officers etc.

## 9.3 Rashtriya Ispat Nigam Ltd. (RINL)

Continuous efforts of RINL on the implementation of safety standards, monitoring of risk control and other proactive measures have resulted in reduction / elimination of potential hazards. Several measures are being taken up to achieve zero accident and to bring positive Safety Culture in the company. Important efforts in this direction include:

**9.3.1 Routine and non-routine** activities in the plant have been identified including the Expansion area as part of OHSMS and Hazard Identification and Risk Assessment (HIRAs) was carried out. All the safety controls are being ensured for all the activities.





**9.3.2 Safety Audits and Inspections:** Internal safety audits have been conducted as per the schedule in all major and minor departments by the concerned Departmental Safety Officer and by Qualified Internal OHSAS Auditors. All the audit points are being complied by the respective departments. External Safety Audits have been conducted once in six months by the Lead Auditors of OHSAS Certifying Agency. All the non-conformities raised by the Auditors were complied. As part of statutory requirement, External audit is being conducted by an External Expert Agency in the field of Safety. All the points raised by the Agency were complied and the report was submitted to Factories Department. In addition to that Regular inspections were also conducted throughout the plant by the Zonal Safety Officers. Apart from the above, Officials from the Factories Department, Govt. of AP have carried out special safety inspections throughout the plant. All the points raised by them are being complied.

**9.3.3 Emergency Management Plan:** To ensure the emergency preparedness during the emergency situations, comprehensive emergency management plan is devised in Visakhapatnam Steel Plant in line with the Circular issued by Ministry of Steel and a Central Control Room at Plant Control is identified to co-ordinate various activities during any emergency situations.

**9.3.4 Safety Committees:** To encourage employees' participation in Occupational Health and Safety Management, one Central Safety Committee and 30 Departmental Safety Committees were formed with equal participation from recognized trade union representatives and management representatives.

**9.3.5 Safety Training and Awareness Campaign:** More than 4400 regular employees were covered in regular safety training programmes and 10000 contract workers were given safety induction training and refresher training. Apart from that, specialized safety training programmes were conducted regularly in the area of Behavioural Based Safety, Legal & Other requirements, Safety in Material Handling, etc.

**9.3.6 Personal Protective Equipment:** All the regular employees are provided with required PPEs and the usage of the same is being monitored. Also, all the contract workers were issued the required PPEs by the Contractors and the usage of the same is being ensured at the site.

**9.3.7 Safety Promotion:** As part of the Safety Promotional activities, the National Safety Day Celebrations were conducted by involving both regular and contract workers' participation in various safety competitions. Safety Week celebrations were also conducted in Works Division as well as in Expansion Units.

The highlights / measures taken during the year 2014-15 (upto December, 2014) :

- Frequency rate of Accidents has been brought down to 0.20 - a decline of 20% over CPLY
- VSP recertified for OHSAS-18001:2007 Standard
- Organized a seminar on Industrial Safety with the theme "Challenges of Frontline Managers/ Supervisors for enhancing the effectiveness of Industrial Safety "



National Safety Council Award - 2013 to RINL

## CHAPTER-IX

- Conducted Night Mock drills in remote areas to check the emergency preparedness during odd hours
- Conducted a special training programme on "Chemical Safety" by Director(Safety),RLI, Chennai, DGFASLI, Govt. of India
- Organized two special training programmes on "Process Safety Management and Behavior Based Safety Management" by M/s BVCI
- Introduced 5 new type PPEs for Benzol Plant employees.

### 9.4 NMDC Ltd.

NMDC has its training centers in all its projects. They are equipped with infrastructure as required under Mines Vocational Training Rules. These centers cater to the needs of basic training, refresher training and training for skilled workers and also for those injured on duty. In each mining project of NMDC sufficient number of workmen inspectors are nominated / appointed for mining operations, mechanical and electrical installations as per statutory requirements. Safety Committees have been constituted in every operating mine and safety meetings are held every month discussing the safety matters and corrective actions related to work atmosphere.

Man days lost per 1000 man days worked for the year 2014-15 (upto Dec.,14) is 0.25.

#### 9.4.1 OHSAS 18001:2007 Certification

NMDC Projects - BIOM, Kirandul Complex, BIOM, Bachel Complex , Donimalai Iron Ore Mine and DMP, Panna are accredited with OHSAS 18001:2007 Certification.

#### 9.4.2 Safety Management System

Safety Management System has been implemented in all NMDC mines.

### 9.5 MOIL Ltd.

All the Mine working is being regularly supervised by Competent Supervisors like Mine Mate, Mine Foremen & Qualified Mining Engineers. Safety Inspections are also being carried out during the working shift by Workmen, Inspector, Safety Officer, Mine Manager & Agents. Internal Safety organization headed by General Manager (Safety) at H.O. Level is co-ordinating with DGMS & inspecting the mine time to time.

Regular Safety Committee meeting are held at mines where day to day Safety aspects are discussed with the participation of workers representative. Unsafe Acts and Mine Accidents are analyzed in details to avoid any recurrence.

**9.5.1 Risk Assessment and Risk Management:** Risk assessment study has been conducted in all major manganese mines, underground as well as opencast mines by experts and safety management plan has been made as per the requirement of DGMS. The main purpose of risk management plan is to identify risk in various activities, analysis of risk evaluation and prioritization of risk management and mitigation plan of risk.

**9.5.2 Occupational Health and Safety Management (OHSAS 18001:2007):** In the area of occupational health and safety management system, MOIL received OHSAS 18001:2007 certificate for Balaghat, Dongri Buzurg, Chikla, Kandri, Munsar, Gumgaon, Tirodi and Ukwa.

### 9.6 MSTC Ltd.

MSTC being a trading organisation does not have any plant/workshops. However, necessary measures are there in all MSTC's offices including attendance of a doctor during office hours.

### 9.7 Ferro Scrap Nigam Ltd. (FSNL)

Constant monitoring is done for motivation of employees to observe safety precautions & safe working practices. In order to impart training to the employees on safety aspects, special training programmes on safety & related topics, are also incorporated in the training calendar prepared for the whole year, which are conducted through the agencies like National Safety Council etc.



Safety Day celebrations are organized by the FSNL wherein debate competitions on safety related topics are also incorporated. Employees take part in such competitions enthusiastically and the winners are given away suitable prizes.

For enhancement of knowledge on prevention of fire hazards, the concerned Steel Plants' Fire Service department is requested to organize special training programmes, including mock-drill, exhibiting the course of action to be taken during fire accidents, and the methodology for prevention of such fire hazards. The Operators of various heavy equipments are also nominated for undergoing training on self-protection and avoiding fire hazards at the work place, which are imparted by the Fire service department of the concerned steel plants

## 9.8 Hindustan Steelworks Construction Ltd. (HSCL)

HSCL has revamped its Safety Management & Practices in line with the nature of activities and taken the following measures to ensure safety at work site:

- Publication of Safety Manual of the Company. This manual has been developed to identify the minimum requirement of safety practices for construction agencies that require personnel to perform construction activities.
- Publication of Safety Hand Book for construction workers outlining important issues on safety and health that should be paid attention to at construction sites.
- The Company has set up a Control Room at Head Office for monitoring Safety aspects of more than 25 units of the Company spread over the country. The set up is headed by a Nodal Officer (Safety) directly reporting to CMD.
- Fully dedicated Safety Officers have been posted at Company's major units, with one executive designated as Officer-in-charge, Safety. Small units have two Safety Officers each and at the big steel unit Bhilai, where major Capacity Expansion packages are under execution, has 11 Safety Officers along with one Safety Consultant.
- Safety Committees have been constituted at different major units for deliberation on the issues related to safety and take action for improvement and to ensure use of Safety appliances and conduct enquiries into accidents, if occurs any.
- Regular training programmes are organized at major steel plant units for workmen and supervisors and executives connected with project execution on Emergency Preparedness Plan, Hazard Identification and Risk Assessment.

## 9.9 MECON Ltd.

MECON has design and consultancy offices and does not have a manufacturing unit. MECON has prepared Safety Policy Statement which is regularly communicated to the employees during orientation training. Some of the features of the Safety Policy Statement have been incorporated in the Conduct and Disciplinary and Appeals Rules of the Company so as to ensure proper compliance of Safety Rules. As a result, no untoward incident has taken place during the year in MECON.

## 9.10 KIOCL Ltd.

KIOCL Ltd. has a separate department called Training & Safety Department and Occupational Health Centre wherein an Engineer and a qualified Doctor together are in charge of looking after safety & health aspects of employees at Plant level.

- KIOCL is compliant with OHSAS : 18001 : 2007 certification for Occupational Hazardous and Safety Management System.
- Identifying training needs and conducting training programmes for the employees are done regularly.
- KIOCL observes safety week every year in the plants in order to create awareness about safety and continuous basis for making work place accident free zone.
- Workers participation in safety Management System is one of the important criteria adopted by the Company. Area-wise Safety Committees are formed. Workers participation in these Safety Committees is ensured.

- Safety Inspections and audits are being carried out at regular intervals (Audit once in 6 months and safety inspection once in a month and safety meetings with workers participation are conducted once in 3 months in compliance of Factory Rules.).
- Various training programmes are being conducted to inculcate safety consciousness and to develop the human resources. Refresher training covering their area of working, First Aid Training, Awareness Training Programme on "Importance of Personal Protective Equipments", Awareness Training Programme on IMS (QMS+EMS+OHSMS). Sustainable Development Training Programme on Operation, Mechanical, Electrical, Instrumentation etc. are conducted on regular basis.
- Mock drills are conducted once in six months as per the Factories Act.

### 9.11 Bird Group of Companies (BGC)

Mining companies under the Bird Group take safety measures according to provision of the Mines Act, 1952 in terms of Rules, Regulations and Guidelines towards safety of employees engaged in mining and allied activities. Necessary safety devices, tools and implements have been provided to the concerned employees. Safe practices pertaining to different activities in mining operations are displayed through participation of workers in safety exhibitions locally as well as regional basis. New practices are also regularly adopted by visiting similar mines. Basic and refresher training is imparted to the workers in the Vocational Training Center & from different disciplines and operational activities in the mines. The employees have received prizes and awards from the Annual Mines Safety Week Celebration Committee of the region.





## **CHAPTER-X**

### **WELFARE OF WEAKER SECTIONS OF SOCIETY**

#### **10.1 Introduction**

The Ministry of Steel comply with the Government guidelines with regard to welfare of weaker sections of the society. Out of total manpower of 196 employees in the Ministry as on 17.2.2015, 48 belonged to SCs (24.48%), 12 belonged to STs (6.12%) and 21 belonged to OBCs (10.71%). During the period from 01.4.2014 to 17.2.2015 no SC/ST employee were appointed.

#### **10.2 Steel Authority of India Ltd. (SAIL)**

Presidential Directives on Reservation for Scheduled Castes and Scheduled Tribes in Appointments in Public Enterprises are continued to be implemented. As on 31.12.2014, out of total manpower of 95161, 15414 belonged to SCs (16.20%), 13246 belonged to STs (13.92%) and 10973 belonged to OBCs (11.53%).

SAIL plants and units including mines are situated in economically backward regions of the country with predominant SC/ST population. Therefore, SAIL has contributed to the overall development of civic, medical, educational and other facilities in these regions. Some of the contributions are:

- Recruitment of non-executive employees, which comprise around 85% of the total employees, are carried out mainly on regional level and hence a large number of SCs/STs and other weaker section of the society get the benefit of employment in SAIL.
- Over the years, a large group of ancillary industries has also developed in the vicinity of Steel Plants. This has created opportunities for local unemployed persons for jobs and development of entrepreneurship.
- For jobs of temporary & intermittent nature, generally contractors deploy workmen from the local areas, which again provide an opportunity for employment of local candidates of economically weaker section.
- Establishment of SAIL steel plants in economically backward areas has given a fillip to the economic activities thus benefiting the support population providing different types of services.
- Steel Townships developed by SAIL have the best of medical, education and civic facilities and are like an oasis for the local Scheduled Castes, Scheduled Tribes and other population who share the fruits of prosperity along with SAIL employees.
- SAIL has also undertaken several initiatives for the socio-economic development of SCs/STs and other weaker sections of the society, such as:
- Special School have been started exclusively for poor, underprivileged children at five integrated steel plant locations. The facilities provided include free education, mid-day meals, uniforms including shoes, text books, stationery items, school bag, water bottles and transportation in some cases. The schools now provide education to more than 1600 children.
- SAIL plants have adopted 15 children from nearly extinct Birhor Tribe. They are being provided free education, boarding, lodging and medical facilities for their overall growth.
- No tuition fee is charged from SC/ST students studying in the Company run schools, whether they are SAIL employees' wards or non-employees' wards.
- Free medical health centres for poor have been set up at Bhilai, Durgapur, Rourkela, Bokaro providing free medical consultation, medicines, etc. to the peripheral population mainly comprising of SC/ST and weaker sections of society.

## CHAPTER-X

- Villagers are given free treatment - outdoor and indoor - in the mines hospitals of Kiriburu, Gua & Chiria when recommended by Manki/Munda (Local Tribal Village Heads) of the peripheral villages which mainly helps the ST community people and other weaker sections of society.
- Steps taken for propagating the reservation policy:
- Internal workshops for Liaison Officers for SC/ST and other dealing officers of SAIL plants/units are conducted at regular intervals through an external expert to keep them updated on the reservation policy for SC/ST and other related matters.
- SAIL has an Apex level identified body namely SAIL SC/ST Employees Federation to represent the issues of SC/ST Employees in a coordinated manner. A meeting with the Federation at the level of Director [Personnel] is organised on a regular basis.

### 10.3 Rashtriya Ispat Nigam Ltd. (RINL)

As on 31.12.2014, the total manpower of RINL was 18191 comprising of 3009 SCs (16.54%), 1320 STs (7.25%) and 1960 OBCs (10.77%).

#### Welfare of SCs/STs

A Death Fund Scheme for employees belonging to SC/ST categories was introduced in January 2009, wherein Rs. 50/- is being deducted from the salary of the members of the association. In the event of death of any member, the amount so collected would be given to the dependent of the deceased member. 122 families have been benefitted under the scheme so far and 16 families upto December, 2014 during the financial year 2014-15. On an average each family has received a sum of little more than Rs. 2 lakhs.

#### Grant under Dr. B R Ambedkar Merit Recognition Scheme - SC and ST Categories

These awards are meant exclusively for the children of employees belonging to Scheduled Castes and Scheduled Tribes

Qualifying Examination	Course in which admission is sought	Amount of Award	No. of Awards	
			SC	ST
12th Class / Intermediate Exam	Degree courses in Engineering / Architecture / Medical / Veterinary /Dentistry/ Agricultural Sciences/ Pharmacy / Law	Rs.1500/- per month for the full duration of the course	8 (Eight)	4 (Four)

*Note: 50% of the awards for 2 categories are awarded on the basis of merit irrespective of the cadre to which the employee belongs i.e. Executive or Non-Executive and the balance 50% of the awards is earmarked exclusively for the children of Non- Executive Employees.*

### 10.4 NMDC Ltd.

The total number of employees in NMDC as on 31.12.2014 was 5507 out of which 972 belong to Scheduled Castes (17.65%), 1160 to Scheduled Tribes (21.06%) and 856 to OBCs (15.54%).As a policy, efforts are made to fill any backlog vacancy in the next year on a continuous basis and the Company has been able to fill the reserved vacancies so far.

### 10.5 MOIL Ltd.

MOIL is a labour intensive organization with 6390 employees on its rolls as on 31.12.2014. About 74.56% of the total strength belongs to SC/ST/OBC out of which 43.87% belongs to SC/ST. MOIL is also taking keen interest in development of the down trodden people living in the vicinity of the mines situated in remote areas as detailed below:

- Adopted villages near the mines and provided drinking water facilities, road maintenance, periodical medical check ups and treatment to the people living in these villages.
- Provided financial aid, stationery, books etc. to the school adjacent to the mining areas.



- Provided sewing machines to women for their development and self-employment.
- Organised training classes for self-employment scheme.
- Provided tri-cycles to the physically challenged persons to be independent.

## 10.6 MSTC Ltd.

The total number of employees in MSTC Ltd as on 31.12.2014 was 310, out of which, 61 belonged to SCs (19.18%), 16 to STs (5.0%) and 51 to OBCs (16.03%). Out of 14 persons recruited during April-December 2014, 2 belonged to SCs and 5 belonged to OBCs from which one belonged to PWD category.

Provision for adequate representation of SC/ST/OBC members in both Departmental Promotion Committees as well as Selection Committees (in case of recruitment) has been made during the year.

During the year, 4 ST, 6 SC and 8 OBC employees of the Company were sponsored for training programmes, both In-House and Institutional Training Programmes.

In addition, all possible cooperation and assistance was provided to the MSTC SC/ST Employees' Council, which function primarily to safeguard the interest of the reserved section of employees of the Company.

## 10.7 Ferro Scrap Nigam Ltd. (FSNL)

Out of the total manpower with the Company i.e. 971 as on 31.12.2014, 187 belonged to SCs (19.25%), 112 belonged to STs (11.53%) and 127 OBCs (13.07%). During the period from 1.4.2014 to 31.12.2014, 01 SCs and 06 STs were appointed by promotion. The Promotion Policy as well as various welfare measures adopted by FSNL takes adequate care of welfare of the employees belonging to weaker sections of SC/ST/OBC communities.

## 10.8 Hindustan Steelworks Construction Ltd. (HSCL)

As on 31.12.2014, out of 132 employees on the strength of the Company, 23 belonged to SCs (17.42%), 10 STs (7.0%) and 13 to OBCs (9.84%). HSCL has been assisting in providing schools in areas where SC/ST/OBC & Physically Handicapped employees mostly reside. Children of SC/ST, OBC & Physically Handicapped employees get due preference in the matter of schooling at Projects. Plots were allotted to workers for making hutment in the land allotted at sites of client with electricity, water supply, and sanitation arrangement etc. Assistance is given for supply of drinking water. Directives of the Central Govt. with regard to recruitment and promotion in respect of SC/ST/OBC & Physically Handicapped employees are strictly adhered to. The Company also undertakes implementation of CSR projects on behalf of other PSUs for the benefit of the downtrodden people of the country.

## 10.9 MECON Ltd.

As on 31.12.2014, out of 1593 employees on the strength of the Company, 290 belonged to SCs (18.20 %), 168 STs (10.54 %) and 189 OBCs (11.86 %). MECON is fully aware of its social responsibilities for development and welfare of weaker section of the Society. It has adopted adequate measures for safeguarding their interests and welfare such as Community Education Scheme, Resource Generation Scheme, Vocational Training Programme in Shyamali Colony, Ranchi, Community Health Programme, assistance to disabled persons at Cheshire Home, village based programme, safe drinking water projects etc.

## 10.10 KIOCL Ltd.

The total number of employees in KIOCL as on 31.12.2014 is 951 out of which 144 persons belonged to Scheduled Caste (15.14%), 51 persons belonged to Scheduled Tribe (5.36%) and 155 persons belonged to Other Backward Classes (16.29%). During the financial year 2014-15 (upto December 2014). 246 employees were promoted put together in all groups A'B'C'D & Ds, out of which 41 employees belong to SC category and 18 employees belonged to ST category.

The Company has setup full-fledged facilities at Kudremukh and Mangalore by establishing a modern township, hospital, recreation facilities etc. 10% of type "A" and "B" quarters and 5% of "C" & "D" type quarters are reserved for SC/ST employees.

### **10.11 Bird Group of Companies (BGC)**

The total number of employees in Bird Group of Companies as on 31.12.2014 is 1375. About 81.67% of the total strength (1123 out of 1375) belonged to SCs/STs/OBCs, out of which, 305 belong to SCs (22.18%), 650 to STs (47.27%) and 168 to OBCs (12.21%).





## **CHAPTER-XI**

### **VIGILANCE**

#### **11.1 Activities of Vigilance Division of the Ministry Of Steel**

The Vigilance Section in the Ministry is headed by a Chief Vigilance Officer (CVO) of the rank of Joint Secretary appointed on the advice of the Central Vigilance Commission (CVC). The CVO with one Director, one Under Secretary and supporting staff, functions as the nodal point in the vigilance set-up of the Ministry. The vigilance unit is inter-alia responsible for the following in respect of the Ministry of Steel and the PSUs under its administrative control:

- Identification of sensitive areas prone to malpractices/temptation and taking preventive measures to ensure integrity/efficiency in Government functioning;
- Scrutiny of complaints and initiation of appropriate investigation measures;
- Inspections and follow-up action on the same;
- Furnishing the comments of the Ministry to the Central Vigilance Commission(CVC) on the investigation reports of the Central Bureau of Investigation(CBI);
- Taking appropriate action in respect of departmental proceedings on the advice of the CVC or otherwise;
- Obtaining first and second stage advice of the CVC, wherever necessary;
- Appointment of CVOs in the PSUs in consultation with CVC and DOP&T;
- Examination of complaints regarding allegations against the officials/officers of the PSUs under this Ministry for appropriate action;
- Maintenance and scrutiny of immovable property returns of officers and staff working in this Ministry;
- Ten PSUs including subsidiaries are functioning under the administrative control of the Ministry. The Vigilance Unit in all PSUs is headed by a CVO appointed by this Ministry in consultation with the CVC and the DOP&T.

The Ministry reviews the vigilance activities in the PSUs through individual meetings and through monthly checklist, periodic returns and statements sent by the CVOs. Other than this, depending on the backlog of pending references, the Ministry also held discussions with the CVOs of concerned PSUs on the need basis. All circulars containing instructions and guidelines on different aspects of vigilance management received from the CVC, were also circulated to the CVO's of the PSUs for compliance. Progress thereon, in the form of follow up action taken, was monitored.

During 2014-15(upto December,2014), 35 CVC references have been received and, out of these, 21 references have been disposed off. From other sources, 102 complaints have been received and 87 were disposed off.

During the period, meeting was held with the CVOs of Steel PSUs wherein the issues regarding transparency in recruitment process, adoption of fair promotion policy, transparency in public procurement, increasing of e-procurement, regular updation of purchase manual, conducting of DPC within stipulated time, rotation of officers occupying sensitive posts etc. were discussed and necessary instructions were issued to all CMDs/CVOs of Steel PSUs. All CMDs of Steel PSUs were also requested to ensure full compliance of instructions/guidelines issued by CVC, DoPT and DPE from time to time.

### 11.2 Steel Authority of India Ltd. (SAIL)

- SAIL Vigilance is laying emphasis on preventive and proactive activities to facilitate an environment enabling people to work with integrity, efficiency and in a transparent manner, upholding highest ethical standards for the organization. Accordingly, following activities were undertaken during the period April'14- December'14:
- A total of 130 workshops involving 3537 participants were organized at the various plants and units of SAIL for enhancing Vigilance Awareness on Whistle Blower Policy, Purchase/Contract Procedures, RTI Act, Conduct & Discipline Rules, System and Procedures followed in SAIL, etc.
- A total of 2374 periodic checks including File Scrutiny and Joint Checks were conducted in vulnerable areas of different Plants / Units of SAIL.
- Saving of approx. Rs. 14.64 Crores accrued from the vigilance investigations and preventive vigilance activities mainly on account of the Surprise Checks.
- The following four (4) thrust areas have been identified for implementation across SAIL:
  - ❖ Maximize the e-auction (Reverse Auction & Forward Auction) in all spheres of the activity and to achieve 100% e-payment in a time bound manner
  - ❖ Scrutiny of files pertaining to 33 high value projects in line with the guidelines issued by Chief Technical Examiner, Central Vigilance Commission.
  - ❖ Scrutiny of the contracts awarded on single tender enquiry (nomination basis)
  - ❖ Increased surveillance in the areas of receipt, sampling & testing of high value raw materials and installing auto analyzers & auto samplers for raw material testing and sampling
- The Purchase / Contract Procedure (PCP) of SAIL, last updated in the year 2009, was taken up for revision at the initiative of SAIL Vigilance. The updated PCP i.e. PCP-14, which is in line with CVC guidelines issued relating to tenders and procurement, has been implemented w.e.f 01.09.2014.
- The Standard Bidding Document (SBD) of SAIL, last updated in the year 2009, was taken up for revision. After incorporating the suggestions of Vigilance Department amongst others, the updated SBD, has been implemented w.e.f. Oct'14.
- SAIL Personnel Department, on the recommendation of SAIL vigilance is preparing a comprehensive Recruitment Manual to lay down Policies / Principles for all recruitments / Promotions in SAIL.
- Internal Audits as integral part of ISO-9001:2008 Quality Management System have been conducted in vigilance departments of SAIL to monitor the efficacy of the implemented system.
- 'Inspiration- Prerna', an in-house publication of SAIL Vigilance is being published regularly. The above publication contains case studies, articles from eminent personalities, quiz on policy matters, etc. to enhance awareness of the readers.
- Vigilance Awareness Week 2014 was observed from 27.10.2014 to 01.11.2014 across all the plants / units of SAIL on the theme of "Combating Corruption - Technology as an enabler".

### 11.3 Rashtriya Ispat Nigam Ltd. (RINL)

Vigilance Wing of RINL took various measures to promote transparency and integrity in RINL with specific focus on preventive vigilance. The following activities were undertaken to promote transparency and integrity in RINL during April-December,2014:

- Conducted 221 system surveillance checks including 34 quality checks and 60 rake/road re-weighments.



*Corporate Vigilance Excellence Award to RINL*

- Organized 19 Vigilance awareness sessions on preventive vigilance / ethics.
- Celebrated Vigilance Awareness Week - 2014 with the theme "Combating Corruption- Technology as an enabler". Several programmes viz; pledge taking, display of posters, essay writing, quiz and elocution competitions etc, designed to create awareness were organized involving the participation of school children, employees and their dependents and other stake holders.
- Two Vigilance officers of RINL bagged National Vigilance Excellence Award-2014.

## 11.4 NMDC Ltd.

NMDC vigilance department had taken several initiatives during the year. Various programmes were conducted for awareness on vigilance matters for the employees of the NMDC During the year (from April - December 2014) 87 surprise checks, 63 regular inspections and 16 CTE type inspections were conducted. Complaints received were taken up for investigation and necessary disciplinary action wherever required was recommended.

Vigilance Department in NMDC is certified under ISO 9001:2008 conforming to the Quality Management System. In-house quarterly magazine of the Vigilance department "Sphoorthy" is being published periodically.

As part of implementation of "Leveraging of Technology for transparency" in all the transactions, information about limited tender enquiries above Rs. 30 lakhs, details of contracts concluded above Rs. 10 lakhs, works awarded on nomination basis, single tender basis above Rs. 1 lakh, information regarding bill payments to the contractors etc., are provided on the company's website. Efforts to encourage e-procurement, e-tender, e-auction are being made continuously.

NMDC has adopted implementation of Integrity Pact since November, 2007. The threshold limit of Rs. 20 crores in case of civil works and contracts and Rs. 10 crores in case of procurement is being followed. Till date, the Integrity Pact has been entered into 75 contracts with a value of Rs. 20131.65 crores. As such, more than 90% of the total value of the contracts are covered under Integrity Pact. In addition, implementation of e-procurement and e-auction have been taken up.



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The Vigilance Awareness Week was observed from 27.10.2014 to 01.11.2014 with the theme "Combating Corruption - Technology as an enabler".

### 11.5 MOIL Ltd.

The functioning of vigilance department includes preventive as well as punitive vigilance and the main thrust is on system improvements in the organisation. Various activities of vigilance department during 2014 are as under:

- ISO-9001:2008 Certificate of Vigilance Department has been re-validated in May 2014.
- 42 nos. of general & surprise inspections and scrutiny of 25 files carried out.
- The disposal of scrap/surplus items and sale of Manganese Ore being done through e-auction. E-procurement being done for purchases and work contracts above threshold value. The threshold value for purchase is Rs.10 lakhs and for Works contract is Rs. 1.00 crore.
- Effective use of website and leveraging technology in discharge of regulatory, enforcement activities and dealing with complaints is being done. The main areas concerned are contracts & procurements, applications for registration of contractors/suppliers/consultants/vendors etc. Status of bill payments to contractors/suppliers is published on website. All tender documents, online applications for recruitment and status, notices and other proformas are posted on the websites.
- Various manuals such as Purchase Manual, Works and Contract Manual, Personnel Manual, Marketing Manual, etc, have been prepared and posted on website.
- Action is taken to ensure that tenders / contracts issued above a threshold value of Rs.30 lakhs are being posted in the website regularly every month and monitored.
- 27 posts have been identified for job rotation considering the sensitivity of the posts and tenure completion.
- Vigilance Awareness Week was observed from 27th October 2014 to 1st November 2014 at all the locations / offices of MOIL Limited. On this occasion vigilance department came out with the 3rd annual issue of vigilance magazine "SHUCHITA"



Inauguration of Vigilance Awareness Week 2014 by CMD MOIL





## 11.6 MSTC Ltd.

MSTC has been consistently following the policy of Zero Tolerance (ZT) on corruption for the maintenance of purity, integrity and efficiency in the organization. The highlights of some of the measures taken in this connection is as under:

- Integrity Pact: MSTC has signed MoU with Transparency International in 2007. One External Independent Monitor has been monitoring the implementation and its progress.
- Random scrutiny and check of property returns.
- Whistle Blower Scheme has been implemented.
- Centralized Public Grievance Reddressal and Monitoring System have been implemented in the Company Website.
- Vigilance issues are discussed periodically with the CMD through structured meetings, Quarterly Review meetings with the Secretary (Steel) and Co-ordination meetings with the investigating agencies.
- Vigilance Awareness Workshop/ Training are conducted/scheduled at Regions & Branches.
- Vigilance Week was observed from 27th of October 2014 to the 1st of November 2014.

## 11.7 Ferro Scrap Nigam Ltd. (FSNL)

Vigilance Department of FSNL had taken several initiatives during year with specific focus on preventive vigilance and systematic improvement in the organisation, briefly mentioned below:-

- 13 nos. of complaint were investigated and report submitted.
- Study of the existing system of operational activities of FSNL has been carried out by Vigilance Department.
- Reviewed the recruitment policy.
- Vigilance department has taken an initiative to update purchase manual of FSNL.
- Vigilance Awareness Week 2014 was observed with the theme of "Combating Corruption - Technology as an Enabler" from 27th Nov. to 1st Oct. 2014.
- FSNL has started availing the services of MSTC portal for E-procurement, initially for bulk purchase items, and thereafter it will be done for other items in a phased manner. Apart from this, all open tenders are hosted on company's website. The information about all Limited Tender Enquiries valuing Rs.20.00 Lakhs & above, are also hosted on company's website.

## 11.8 Hindustan Steelworks Construction Ltd. (HSCL)

The Vigilance Department of the Company is headed by CVO. Vigilance Awareness Week was observed at the Head Office as well as at the units of the Company from 27th October to 1st November 2014. Training programmes were held on Vigilance Awareness and Project Management at 6 major units of the Company. E-Tendering has been successfully introduced. HSCL is now an E-procurement compliant Company. Display of bill payment and outstanding payment status of the contractors on website is being done on regular basis. Video recording of the tender process is in place.

## 11.9 MECON Ltd.

The Vigilance Department of MECON Ltd. has taken a number of initiatives, briefly mentioned below :-

Vigilance Awareness Week-2014 was observed at MECON Head Office, Ranchi and at various Regional/ Site offices from 27th October to 1st November, 2014.

## CHAPTER-XI

Implementation of Integrity Pact in MECON- MECON has signed Integrity Pact (IP) with 73 suppliers/ contractors (threshold value - Rs. 1 crore). The IP is part of the NIT document which is uploaded on the MECON Website in downloadable form and all bidders are required to submit signed IP along with their bids.

EIM (External Independent Monitor) has been functional in MECON. So far no representation/ complaints/ disputes have been received in the matters of contracts and tenders under IP.

Implementation of e-procurement and e-payments in MECON - All tenders irrespective of value are uploaded on MECON Website along with the tender documents, drawings and data, technical specification, etc. in downloadable form for greater transparency, barring some small emergency procurements. All requisite tenders are also uploaded on CPP Portal. Details of contracts awarded/ purchase orders issued are put on MECON Website. Details of new tenders and old tenders are also kept available on MECON Website for reference. The application forms for vendor registration and renewal have been uploaded on MECON Website in downloadable format. Status of application is also available on the website. All payments to vendors are made through electronic fund transfer (NEFT/ RTGS mode) except some small bills to local vendors. Payments towards Sales tax, Service tax, etc. are also made through RTGS/NEFT. Web enabled Bill Watch System has been introduced in MECON for uploading all invoices/bills in respect of new projects to enable vendors to track the status of their bills.

ISO Certification of Vigilance Department, MECON, Ranchi - MECON Vigilance has its own Vigilance Quality Manual and follows well-established Quality Management System ISO 9001:2008. A certificate to this effect has been obtained from TUV India which is valid upto 26.11.2015. The Yearly Surveillance Audit (2014) of Quality Management System (QMS) of Vigilance Department, MECON, Ranchi was conducted by TUV India on 13.10.2014 in which TUV India has expressed satisfaction over QMS being followed by Vigilance Department.

### 11.10 KIOCL Ltd.

**Integrity Pact Programme:** Integrity Pact Programme was introduced in KIOCL from 01-01-2008. During 2014, 112 tenders have been issued by incorporating IP clause.

**ISO 9001-2008:** ISO-9001:2008 Certificate of Vigilance Department has been re-validated and is valid till 10.02.2016.

**Submission of Annual Property Returns:** Submission of Annual Property Returns has been made online. There are 312 executives in the organization. As per the CVC guidelines 20% of above has to be scrutinized every year. Accordingly scrutiny of Annual Property Returns of 63 executives has been carried out during the year.

**Inspections:** Inspections are being carried out regularly to ensure adherence to norms and eliminate deviations. During 2014, 4 CTE inspections, 38 surprise checks, 36 general inspections and 37 scrutinies of files are carried out.

**E-governance:** Disposal of scrap/ surplus items is being done through e-auction, since September 2004. E-Procurement by reverse auction commenced from Sep-2010. The threshold value for e-procurement is fixed at Rs.5 lakhs and above. Payments above the threshold value i.e., Rupees one lakhs are being made through electronic mode.

### 11.11 Bird Group of Companies (BGC)

BGC has its Vigilance Department headed by the Chief Vigilance Officer (CVO) of RINL, and assisted by one Vigilance Officer and PSO to CVO in Head office, Kolkata. In addition two Vigilance Officers (additional charge) are appointed for both OMDC mines, Thakurani and BSLC mines, Birmitrapur. The functions of Vigilance Department include both preventive and punitive actions for all the mines of the company and for the Registered Office at Kolkata. Company's Vigilance Department is continuing its efforts for systematic improvement to bring more and more transparency in working and conducted various training programme interactive sessions for creating Vigilance Awareness among the employees. The Company observes "Vigilance Awareness Week" in every year during the month of November.



System improvement has been achieved/improved in the following areas:-

- Codification of all service rules and their implementation with the Board Approval.
- Disbursement of all payments through electronic medium.
- Adoption of Whistle Blower Policy.
- Adoption of Complaint Handling Policy.
- Initiative for the installation of surveillance system at Company mines.
- MIS system has been modified at Head Office for collecting information on production, sales, fund position etc. on daily basis.
- Sale of material through e-Auction.
- Implementation of ISO 9001:2008 Certification at Vigilance Management of entire set of activities for BGC, Vigilance Department.
- Installation of Weigh-bridges at all the vital exit points and such weigh-bridges to be connected with computer in order to ensure automatic recording of minerals received at the various plots/ Stockyards so the data's are reconciled on day to day basis. It is being implemented in phased manner.

## CHAPTER-XII

### GRIEVANCE REDRESSAL MECHANISM

#### 12.1 Centralised Public Grievances Redressal and Monitoring System

Centralised Public Grievance Redressal and Monitoring System (CPGRAMS) has been implemented for facilitating public grievances in the Ministry and its PSUs. The CPGRAMS, is an online web-enabled system over NICNET developed by NIC in association with the Department of Administrative Reforms and Public Grievances (DARPG) with an objective of speedy redressal and effective monitoring of grievances by Ministries/Departments/Organisations of Government of India. The entire life cycle of the grievance redressal operation is (i) Lodging of the grievance by a citizen. (ii) Acknowledgement of acceptance of grievance by organisation. (iii) Assessment of grievance regarding follow up action. (iv) Forwarding and transfer. (v) Reminders and clarification. (vi) Disposal of the case.

The details of grievances dealt with in the CPGRAMS for the period from 01.04.2014 to 31.12.2014 are as under:

Outstanding as on 01.04.2014	Received during 01.04.2014 to 31.12.2014	Disposed of during 01.04.2014 to 31.12.2014	Pending as on 31.12.2014
24	300	279	45

A revised Sevottam Compliant Citizen's/Clients Charter has been finalized and implemented in the Ministry of Steel. Detailed status of adoption of 'Seven Step Model for Citizen Centric- Sevottam' in the Ministry and Steel PSUs is at Annexure XVI.

The position of the implementation of the judgment/orders of the Central Administrative Tribunal is given in Annexure-XII.

#### 12.2 Steel Authority of India Ltd. (SAIL)

Effective internal grievances redressal machinery exists in SAIL plants and units, separately for executives and non-executives. The grievance procedure in SAIL has evolved after sustained deliberations and consent of employees, trade unions and associations.

The grievances in SAIL plants/units are dealt in 3 stages and employees are given an opportunity at every stage to raise grievances relating to wage irregularities, working conditions, transfers, leave, work assignments and welfare amenities etc. Such issues are effectively settled through the time-tested system of grievance management. However, majority of grievances are redressed informally in view of the participative nature of environment existing in the steel plants. The system is comprehensive, simple and flexible and has proved effective in promoting harmonious relationship between employees and management.

Status of Public/Staff grievances for the period 1.4.2014 to 31.12.2014 is as under:

Type of Grievance	Grievances outstanding as on 01.04.2014	Received during April 2014 to December 2014	Disposed of during April 2014 to December 2014	No. of Grievances pending as on 31.12.2014
Public Grievances	08	261	191	78
Staff Grievances	14	560	562	12

#### 12.3 Rashtriya Ispat Nigam Ltd. (RINL)

In RINL, there is separate structured formal and informal Grievances Handling System for redressal of grievance of employees. In the formal Grievance Procedure for non-executives, a workers' representative





is present in the committee. Further, both executives and non-executives grievance handling systems have a fixed time frame to redress the grievances. A senior officer at the level of General Manager is designated as OSD (Public Grievances) to deal with the public grievances.

## Status of Public/Staff grievances for the period from 01.04.2014 to 31.12.2014:

Type of Grievance	Grievances outstanding as on 01.04.2014	Received during April 2014 to December 2014	Disposed of during April 2014 to December 2014	No. of Grievances pending as on 31.12.2014
Public Grievances	1	10	11	Nil
Staff Grievances	Nil	1	Nil	1

## 12.4 NMDC Ltd.

The grievance redressal machinery in NMDC is headed by an Executive Director in the Head Office and by Head of Projects in each of the four production Projects. The CVO has been nominated as the nodal officer for monitoring the grievance redressal machinery. A link to the Government of India's portal for Public Grievances has been provided in the home page of NMDC's website for registering grievances.

## Status of Public/Staff grievances for the period from 01.04.2014 to 31.12.2014:

Type of Grievance	Grievances outstanding as on 01.04.2014	Received during April 2014 to December 2014	Disposed of during April 2014 to December 2014	No. of Grievances pending as on 31.12.2014
Public Grievances	2	1	3	Nil
Staff Grievances	Nil	42	42	Nil

## 12.5 MOIL Ltd.

MOIL has its own grievance redressal procedure for Executives as well as Non-executive employees. The redressal of grievance machinery in MOIL consists of one Grievance Officer nominated for the purpose at each unit. The Grievance Officer nominated at Head Office co-ordinates with the Grievance Officers at the units for their effective performance.

The grievances are monitored at Head Office on the basis of assessment of data received from Unit Grievance Officer through the monthly report as well as through inspection by Head Office authorities.

## Status of Public/Staff grievances for the period from 01.04.2014 to 31.12.2014:

Type of Grievance	Grievances outstanding as on 01.04.2014	Received during April 2014 to December 2014	Disposed of during April 2014 to December 2014	No. of Grievances pending as on 31.12.2014
Public Grievances	Nil	Nil	Nil	Nil
Staff Grievances	Nil	419	419	Nil

## 12.6 MSTC Ltd.

Online registration of Public Grievance has been provided at MSTC's corporate portal [www.mstcindia.co.in](http://www.mstcindia.co.in). Under this portal the Principal/Buyer can register their grievances and view the status with the help of a unique system generated code for the complaints. They can also view the progress of grievance registered online.

## CHAPTER-XII

Further, a link on CPGRAMS (Central Public Grievance Redress & Monitoring System) is also provided in the home page of MSTC's corporate website which is monitored by nominated officials.

Grievance cells have also been constituted in different Regional and Branch offices so that grievance can be sorted out immediately and action be taken to solve the cases.

Grievances from the employees are also taken care by the HOD's and Region/Branch Managers. Some of the grievances are also received at the Central Grievance Cell by post. Moreover the HR Dept. attends to various formal/informal grievances received from the employees in day to day running of the office in consultation with the HOD's & Staff Unions, wherever necessary.

### **Status of Public/Staff grievances for the period from 01.04.2014 to 31.12.2014:**

Type of Grievance	Grievances outstanding as on 01.04.2014	Received during April 2014 to December 2014	Disposed of during April 2014 to December 2014	No. of Grievances pending as on 31.12.2014
Public Grievances	Nil	19	13	6
Staff Grievances	Nil	Nil	Nil	Nil

## **12.7 Ferro Scrap Nigam Ltd. (FSNL)**

### **Status of Public/Staff grievances for the period from 01.04.2014 to 31.12.2014:**

Type of Grievance	Grievances outstanding as on 01.04.2014	Received during April 2014 to December 2014	Disposed of during April 2014 to December 2014	No. of Grievances pending as on 31.12.2014
Public Grievances	Nil	Nil	Nil	Nil
Staff Grievances	1	6	7	0

## **12.8 Hindustan Steelworks Construction Ltd. (HSCL)**

Compliance with regard to Public/Staff Grievance Redressal was made during 2014-15 (till December,2014).

## **12.9 MECON Ltd.**

### **Public Grievances**

By and large MECON does not have dealings with the public in general. But any specific complaints relating to any kind of harassment is treated as a grievance. Complaints from customers are taken very seriously and attended to. There is no grievance pending from the contractors/customers or public in general. MECON has nominated Nodal Officer under Centralized Public Grievances Redressal and Monitoring System (CPGRAMS) for public grievances and the name of Nodal Officer is published in the website of Ministry of Personnel, Public Grievances.

### **Employees Grievances**

In MECON there is a three-tier grievance procedure for redressal of employees grievance. A Grievance Advisory Committee consisting of representatives of Executive and Non-Executive employees is operative to examine grievances of employees and submit recommendation for redressal. Further, there is a separate cell for redressal of grievances of SC/ST/OBC employees. At present, there is no staff grievance from any quarter. Generally employees prefer to take up their issues/grievances through their elected representatives of MECON Employees Union (MEU) in respect of non-executive employees and MECON Executives Association (MEA) in respect of executive employees both of which are recognized by the Company.



## 12.10 KIOCL Ltd.

KIOCL has framed a well-defined Grievance Procedure evolved under the code of Discipline in March 1977 which covers all the employees, both Executives and Non-executives. The Grievances are easily identified and redressed at the grass root level itself. KIOCL has a well-structured and multilayered Public Grievances Redressal Mechanism including Dispute Resolution Mechanism. The Public Redressal setup in KIOCL has been introduced right from Corporate office at Bangalore to all production units and liaison offices. Public Grievance Officers are nominated at all locations. The Complainant can approach these officers in person or through written complaints or communicate through e-mail or contact on telephones. Regular customers meet is organized at regular intervals.

**Status of Public/Staff grievances for the period from 01.04.2014 to 31.12.2014:**

Type of Grievance	Grievances outstanding as on 01.04.2014	Received during April 2014 to December 2014	Disposed of during April 2014 to December 2014	No. of Grievances pending as on 31.12.2014
Public Grievances	Nil	Nil	Nil	Nil
Staff Grievances	Nil	Nil	Nil	Nil

## 12.11 Bird Group of Companies (BGC)

Grievance Redressal Mechanism is in place in Bird Group of Companies at Unit Level and at Corporate Level. Nodal Officer has been notified for this purpose. The name & designation of the officer have been posted in the company website.

Type of Grievance	Grievances outstanding as on 01.04.2014	Received during April 2014 to December 2014	Disposed of during April 2014 to December 2014	No. of Grievances pending as on 31.12.2014
Public Grievances	Nil	Nil	Nil	Nil
Staff Grievances	Nil	Nil	Nil	Nil

## CHAPTER-XIII

# IMPLEMENTATION OF PROVISIONS OF PERSONS WITH DISABILITIES ACT, 1995

### 13.1 Ministry of Steel

The Ministry of Steel follows the Governments rules with regard to the implementation of provisions of the Disabilities Act, 1995. As on 17.2.2015, three persons (one visually handicapped (VH), one hearing handicapped (HH) and one orthopedically handicapped (OH) with disabilities are employed in the Ministry of Steel.

### 13.2 Steel Authority of India Ltd. (SAIL)

- Provisions related to reservation for Persons with Disabilities in terms of Section 33 of The Persons with Disabilities (Equal Opportunities, Protection of Rights & Full Participation) Act, 1995 is followed at Plants/Units of SAIL.
- SAIL provides scholarship to the physically disabled children of its employees to support their education.
- Employees in works division who become disabled while in service are redeployed in identified posts after providing them training. Proper medical facilities like Jaipur foot and wheel chair etc. are also provided to them
- Special relaxation is provided in allotment of quarters to disabled employees. Care is taken to allot ground floor to such employees.
- SAIL extends free medical facility even to non-entitled major brother or sister of an employee, if they are disabled and dependent on the employee.
- Shops, STD booths, Milk booths, Hawkers licenses etc. are allotted to disabled persons in plants of SAIL.
- Various facilities for sports and cultural activities are provided exclusively for the disabled persons at plant locations. Separate playgrounds have been earmarked for the handicapped at some of the plant locations.



Care for Differently-abled children at SAIL's Durgapur Steel Plant

### 13.3 Rashtriya Ispat Nigam Ltd. (RINL)

The following actions have been taken up at RINL-Visakhapatnam Steel Plant for the convenience of the differently-abled persons at different offices at main administrative building / Corporate office of RINL-VSP:





- Providing Ramp Way
- Auditory Signal in both the lifts of the Administrative building
- Provision of a wheel-chair at the Reception Centre located at the entrance of the Main Administrative Building
- After the Act came into force on 7th February, 1996, RINL has employed 95 persons with various disabilities (including 7 persons selected on merit) .

## 13.4 NMDC Ltd.

NMDC being a mining organization is governed by the provisions of the Mines Act and Rules and Regulations thereof and considering the safety factor it is not possible to employ PwDs in jobs involving working in the mines/plant. However efforts are being made to induct PwDs in posts where field work is not involved and at present NMDC has 46 employees with disabilities in various posts. With a view to increase the representation of PWDs, efforts are on to fill up 63 posts of PwDs in Group D.

## 13.5 MOIL Ltd.

MOIL Ltd. being Mining Company, major activities are carried out in underground Mines situated in remote places. The attempt is made to identify suitable posts so that physically handicapped (PH) persons can be given employment in the Company. At present there are 23 persons with disability employed in MOIL.

## 13.6 MSTC Ltd.

As on 31.12.2014, eight persons with disabilities are employed in MSTC.

## 13.7 Ferro Scrap Nigam Ltd. (FSNL)

FSNL is a scrap processing company, rendering services to the integrated steel plants. The activities of FSNL operations are carried out in open area in all the seasons. Further, heavy equipment such as Balling Cranes, Magnetic Separators, Dozers, Dumpers etc. are the main equipment used in carrying out operational activities. Thus, the atmosphere/working conditions of FSNL are not conducive for the persons with disabilities and hence engagement of disabled persons for carrying out jobs in field will not be safe for them.

However, in adherence to the Government directives, three posts each in Executive & Non-executive categories for persons with disabilities, one each for Visually Handicapped, Hearing Impaired and Orthopedically Handicapped under Group-A & Group-C categories in Ministerial Category have been identified. FSNL being a service organization, rendering specialized services to the integrated steel plants in the area of scrap recovery & processing jobs, the recruitment in FSNL are made only on need base, depending on availability of jobs from the steel plants.

## 13.8 Hindustan Steelworks Construction Ltd. (HSCL)

As on 31.12.2014, three persons with disabilities are employed in HSCL Ltd.

## 13.9 MECON Ltd.

MECON Ltd. has implemented the provisions of "Persons with Disabilities Act, 1995". Total employment strength of MECON as on 31.12.2014 is 1593, out of which persons with disabilities in various posts are 11.

## 13.10 KIOCL Ltd.

As on 31.12.2014, thirteen employees belonging to Persons with Disabilities category in different groups are in position in KIOCL.

## 13.11 Bird Group of Companies (BGC)

Two persons with disabilities are employed in BGC.

## CHAPTER-XIV

### PROGRESSIVE USE OF HINDI

#### 14.1 Introduction

The Ministry of Steel has made considerable progress in use of Hindi in official work during the year 2014-15 keeping in view the Annual Programme prepared and issued by the Department of Official Language [Ministry of Home Affairs] for implementation of the Official Language Policy of the Union.

The work relating to the progressive use of Hindi in the Ministry is under the administrative control of a Joint Secretary. The Hindi Section, under the direct charge of Joint Director (Official Language), looks after the work relating to implementation of Official Language Policy and Hindi Translation work and it consists of one Assistant Director (OL), two Senior Hindi Translators, two Junior Hindi Translators, one UDC and other supporting staff.

##### 14.1.1 Official Language Implementation Committee

There is an Official Language Implementation Committee under the Chairmanship of a Joint Secretary in the Ministry. This Committee reviews the progress made in the use of Hindi in the Ministry and its Public Sector Undertakings. Meetings of the Committee are held regularly. Four such meetings have been held during 2014-15.

##### 14.1.2 Hindi Salahkar Samiti

Hindi Salahkar Samiti works under the Chairmanship of Union Minister for Steel with the main objective to advise the Ministry with regards to progressive use of Hindi in its official work.

##### 14.1.3 Implementation of Section 3[3] of the Official Language Act, 1963

In pursuance of the Official Language Policy of the Government of India, almost all documents covered under Section 3[3] of the Official Languages Act, 1963 are prepared both in Hindi and English. In order to ensure issue of letters in Hindi to the Central Government Offices located in Region "A", "B" and "C", check points have been identified in the Ministry.

##### 14.1.4 Incentive Scheme for Original Work in Hindi

The cash incentive scheme for original work in Hindi introduced by the Department of Official Language has been implemented in the Ministry. In addition to this officials are also awarded incentive allowance for Hindi typing/stenography for doing their work in Hindi alongwith English.

##### 14.1.5 Rajbhasha Shield/Trophies

In order to encourage the use of Hindi in the PSUs under the administrative control of Ministry of Steel, a Rajbhasha Shield Scheme is in operation comprising Ispat Rajbhasha Shield (First Prize), Ispat Rajbhasha Trophy (Second Prize) and Ispat Rajbhasha Trophy (Third Prize) and a Rajbhasha Shield exclusively for the PSUs located in Region "C". These are given every year to the Undertakings on the basis of their annual performance in progressive use of Hindi.

##### 14.1.6 Hindi Divas/Hindi Fortnight

In order to encourage use of Hindi in official work amongst officers/employees of the Ministry, an appeal was issued by the Hon'ble Minister of Steel on 14th September, 2014 on the occasion of Hindi Day. Hindi Fortnight was organized in the Ministry from 1st September to 14th September, 2014. During this period, various Hindi competitions were organized to create an atmosphere conducive to use of Hindi in the official work and the prizes were given to the winners of the competitions on 26.09.2014.

##### 14.1.7 Cash award scheme for writing original books in Hindi

Cash award scheme for writing original books in Hindi in the matters concerning steel and being dealt with by Ministry of Steel is in operation comprising 1st, 2nd and 3rd prizes of Rs. 25000/-, Rs. 20000/- and Rs. 15000/- respectively. Objectives of the scheme is to encourage the writers to write original books in Hindi.



## 14.1.8 Official Language Inspections by the Officers of the Ministry

The officers from the Ministry visited 29 various offices of the PSUs up to 14.02.2015 under the administrative control of the Ministry to adjudge the progressive use of Official Language in those offices and remedial measures were suggested for compliance of Official Language Policy of the Union in these offices.

## 14.2 Steel Authority of India Ltd. (SAIL)

SAIL has continued its thrust on implementation of the Official Language Policy of the Government of India. Continuous efforts are being made by SAIL for the propagation of Hindi. In the area of Hindi Computerisation, 52 jobs have been done through integrated system with the help of C&IT department (Software Group). Facility of online submission of forms for monthly Hindi incentive was fully streamlined.

Town Official Language Implementation Committee (PSU), Delhi under the Chairmanship of SAIL has been adjudged FIRST for commendable performance in implementing the Official Language Policy during the year 2013-14. Chairman, SAIL received the National Award in the form of Indira Gandhi Rajbhasha Shield from Hon'ble President of India Shri Pranab Mukherjee in a function organized at Vigyan Bhawan, New Delhi on 15th November, 2014.

A Video Conferencing was organised for all SAIL plants/units on 09/09/2014 on 'E-tools available in Hindi' with Sr. Technical Director, Rajbhasha Vibhag, MoH as faculty. A special Rajbhasha Sangoshthi was also organised on 30.9.2014 on the topic 'Significance of Hindi Workshops' under the aegis of Ministry of Steel. Around 60 personnel including 26 officers up to the level of Director/ Dy. Secretary from the Ministry attended the programme.

The efforts of the Company in propagation & use of Official Language has won several awards and accolades at the corporate/plant/unit levels. Hindi house journal of SAIL 'Ispat Bhasha Bharti' bagged First prize at town level. The award was received by Director (Personnel) from Secretary, Rajbhasha, Govt of India on July 28, 2014 during the NARAKAS meeting at Delhi.

SAIL's House journal in Hindi, 'Ispat Bhasha Bharati' was also designed in the form of e-Patrika and made available on SAIL portal, as a result of which the magazine can now be viewed by all SAIL employees at plant/units.

## 14.3 Rashtriya Ispat Nigam Ltd. (RINL)

Implementation of Official Language Policy and compliance of specified rules has always been given its due importance at RINL. In this regard training and various other activities have been undertaken as outlined in the approved roadmap of the company. Official Language Implementation Committee in the organization is headed by CMD with top management personnel as members of the committee. Committee reviews the activities on quarterly basis and provides direction for effective usage of official language in the organization.

Initiatives taken towards progressive use of Hindi and recognitions received during the year 2014-15 are given below:

- 203 employees were trained in two batches under Hindi Prabodh / Praveen courses conducted by Hindi Teaching Scheme, Ministry of Home Affairs, Govt. of India.
- 267 employees were trained in Hindi Workshops conducted at HQ, Mines and Regional/Branch Offices.
- 252 employees were trained to work on computers in Hindi through Unicode.
- Hindi classes for Madhyama Course of Dakshina Bharat Hindi Prachar Sabha have been conducted for housewives of Rehabilitation Colonies
- Hindi Week/Day was celebrated and various competitions were organized at Headquarter / Regional/Branch Offices located at various places.

## CHAPTER-XIV

- Twelve (12) Departments/Sections were inspected during the period and necessary help was extended for progressive use of Official Language.
- Quarterly Hindi Magazine 'Sugandh' was selected for National level award by Department of Official Language, Ministry of Home Affairs, Govt. of India.
- In recognition to the efforts taken in effective implementation of Official Language in the organization, second Prize of prestigious Indira Gandhi Rajbhasha Shield was bestowed to the company - 7th time in a row.

### 14.4 NMDC Ltd.

NMDC Limited made all efforts for the implementation of the Official Language Policy and for the use of Official Language in all its Projects, Units and Head Office.

Hindi Workshops were conducted for employees to make them efficient to use official Language in their day-to-day official work. During Hindi Workshops all employees were imparted Micro soft Indic Computer training on phonetic Hindi Keyboard.

Hindi Seminar for two days were conducted for the officers and their subordinates of all projects and officers/incharges of the units to make them efficient in "on line submission" of Quarterly Report to Ministry of Steel. Apart from this one yearly Hindi stenography training programme for stenographers is also organised by Head Office.

To bring awareness among the employees and their family members of NMDC various competitions like Hindi Noting, Drafting and Technical Terms, Hindi Anuvad, Unicode Hindi typing on computer, Quiz, Hindi shabdahgyan competition and creativity competition for house wives, (The procedure of item was Written in Hindi) etc. were also conducted and prizes were awarded to winners during Rajbhasha Pakhwara.

Monthly Hindi Cash incentive schemes were implemented to propagate the usage of Hindi and large number of employees were benefitted under this scheme.

To encourage the employees to implement Official Language Hindi in the technical field 56 Rajbhasha Technical Seminars were organized till now and Technical Seminar patrika "Takneeki Sopan, Takneeki Kshitiz" and Rajbhasha Souvenirs "Sarjana, Kaanan Kusum" were also published

### 14.5 MOIL Ltd.

In MOIL, Hindi workshops are organized regularly. During the year, the Company continued its efforts in propagating and implementation of the provisions of Official Language Act, 1963, in order to encourage the employees to participate in various competitions like essay competition, noting, drafting, poetry and articles for propagating Hindi.

The Unicode system has been implemented in all computers of the Company. The Company has provide Hindi language software in Computer and imparting training to its employees, so that MOIL's employees can use the same in their day-to-day workings. About 96% of the works are being done in Hindi at Mines, which has been highly appreciated.

"Town Official Language Implementation Committee" Nagpur has organized different inter-office competitions in which employees from head office and mines participated. "Town Official Language Implementation Committee" has awarded MOIL with "Protsahan Puraskar" for their outstanding work in promoting Hindi for the year 2011-12.

Employees are being given re-training under the "Hindi Education Scheme" of the Home Ministry, in which 284 employees have already been given training for Pragya (Higher Level).

Further, the Company is also publishing In-House Journal "SANKALP" in Hindi.

### 14.6 MSTC Ltd.

Rajbhasha Trimas was inaugurated on 15th September, 2014. During this period, Hindi competitions and Hindi workshops were organized in Head Office and in Regional and Branch Offices.





Apart from Regional Offices and Branch Offices, this year total 22 officers/employees have been awarded for winning in Hindi Noting competitions held in Head Office and in ERO as well for winning in Essay competition held in All India MSTC and for passing Hindi examinations conducted by Hindi Teaching Scheme, Official Language Department, Govt. of India.

ISO 9001:2008 certification of Official Language Department was renewed. Unicode was installed in Head Office and Regional and Branch Offices.

## 14.7 Ferro Scrap Nigam Ltd. (FSNL)

The directives received from the Government time to time with regard to implementation of Official Language policy are strictly adhered to by FSNL. Hindi Noting/Drafting competitions etc., were conducted during the year and as per the scheme, Cash Awards were given away to the winners. Constant monitoring & encouragement of the employees is ensured to motivate employees to do their day-to-day jobs in Hindi. Like previous years, Hindi Pakhwada (Hindi Fortnight) was organized at Corporate Office & all units of FSNL in the month of September 2014. Various competitions viz., Hindi essay writing, Hindi Gyan Pratiyogita, Hindi Debate competitions etc., were organized during this occasion, wherein the employees participated enthusiastically.

## 14.8 Hindustan Steelworks Construction Ltd. (HSCL)

HSCL has made various encouraging efforts in implementing the Official Language Policy and Programs of Department of Official Language, Government of India. Besides holding meeting of the Official Language Implementation Committees at Corporate and Unit levels at regular intervals, HSCL made massive drive to motivate its officials at all levels for use of Hindi in official notes and drafts. The Govt.'s guidelines on the use of Rajbhasa are complied with. HSCL is a member of the Town Official Implementation Committee and actively participates in all the programs.

Hindi workshops were organized in every quarter at unit level to educate and encourage the employees to use Hindi in their day-to-day official works.

Hindi fortnight was observed from 15th of September to 30th of September in which competitions such as Hindi essay writing, noting and drafting, quiz competitions, elocution etc. were held. On the concluding day of the fortnight, prizes were distributed to winners as well as to all the participants.

In recognition to the efforts, HSCL has been awarded with the "Rajbhasa CALTOLIC" award, conferred by Sri Keshari Nath Tripathi, Hon'ble Governor of West Bengal on 08.09.2014.

## 14.9 MECON Ltd.

MECON is effectively implementing the Official Language Policy of Govt. of India in its official work. There is an Official Language Implementation Committee under the Chairmanship of CMD. MECON is an important member of Town Official Language Committee, Ranchi and actively participates in all the programmes.

MECON has been awarded with Excellent Prize & Certificate by the Mahanagar Samanyvay Samiti, Kolkata under the agies of Kendriya Sachiwalaya Hindi Parishad, New Delhi in the Rajbhasa conference, 2014 held in Kolkata on 25th July, 2014.

"Hindi Pakhwara" was observed in MECON at Head Office as well as in all site offices of the company from 14.09.2014 to 28.09.2014 and during this period competitions of various nature such as Hindi Essay and Extempore Speech in Hindi were organized.

A special Hindi workshop and one Rajbhasa symposia on "Computer per Hindi me Unicode ka prayog karne kee vidhi" were organised during the Pakhwara. Beside, Mecon also observed "Rashtrakavi Ram Dhari Singh 'Dinkar' Jayanti" during Hindi Pakhwara.

A Hindi House Magazine - "MECON BHARATI" is being published regularly. This magazine provides a platform for Employees for creative writing in Technical field in Hindi. News items in Hindi are being published in 'MECON SANSAR', the quarterly in-house journal of MECON.

### 14.10 KIOCL Ltd.

KIOCL follows the directives issued from time to time by the Department of Official Language, Ministry of Home Affairs and Ministry of Steel, Government of India for the Progressive use of Official Language Hindi.

During the year, 06 Hindi workshops, one in each quarter were conducted to impart practical training to employees for doing their official work in Hindi.

KIOCL is Convener of Bangalore Town Official Language Implementation Committee (Undertakings) and conducts regular meetings and Joint Hindi Month programmes for all Central PSUs in Bangalore. The meetings were conducted on 2nd July, 2014 and 29th December, 2014.

The Company organized a Joint Hindi Month for Town Official Language Implementation Committee (Undertakings) members between 30th July, 2014 to 27th August, 2014.

In recognition of TOLIC activities for the year 2012 -13 in Implementation of Official Language Policy, TOLIC(Undertakings) was awarded Indira Gandhi Rajbhasha Shield by Govt. of India, Ministry of Home Affairs, New Delhi, on 15th November 2014 by the President of India.

### 14.11 Bird Group of Companies (BGC)

BGC has taken positive steps to enhance awareness and usage of Hindi among employees. Company had observed "Hindi Pakhwada" w.e.f. 14 September to 28 September 2014 by way of organizing competitions such as essay writing, singing Hindi song, Hindi poems recitation and Hindi Dictation in which the employees took active participation. Cash Prizes and certificates and mementos were awarded to the winners of various events. Bilingual Boards and advertisements are being issued. "Rajbhasha Shikshan Board" is placed at Head Office to apprise the employees with new words every day. "Probodh & Prabin" exams have been completed and further training programme for "Pragya" will start from Jan, 2015.



## **CHAPTER-XV**

### **EMPOWERMENT OF WOMEN**

#### **15.1 Introduction**

The Supreme Court of India in its judgment in August, 1997, in the case of Visakha and others versus State of Rajasthan and others, recognized international conventions and norms of gender equality of women, in relation to work and held that sexual harassment at workplace, is against their dignity and is violative of Article 14, 15(1) and 21 of the Constitution of India. As per the guidelines laid down by the Supreme Court, all employers whether in the public or private sector should take appropriate steps to prevent sexual harassment. As a part of the mechanism, a Complaint Committee (Sexual harassment of women at work place) with representatives from outside the organization was constituted.

In compliance of the guidelines of the Supreme Court, Ministry of Steel has constituted a five-member Committee, headed by a Deputy Secretary level woman officer and having three women as members, to look into complaints made by women employees and to address them. The committee did not receive any complaint in 2014-15.

##### **15.1.1 Empowerment of Women**

A Gender Budget Cell has been set up in the Ministry as per directions of the Ministry of Finance and the Ministry of Women and Child Development with the aim to initiate steps of implementation of the concept in this Ministry.

#### **15.2 Steel Authority of India Ltd. (SAIL)**

SAIL employs women employees in both Technical and non-technical area. They are in managerial, technical (engineers) capacity, in medical, para-medical services and in academics. SAIL does not discriminate either at selection, recruitment and placement or at promotion levels and equal opportunities are provided for both the sexes at all levels.



*Hon'ble Minister of Steel & Mines, Shri Narendra Singh Tomar along with Hon'ble Minister of State for Steel & Mines, Shri Vishnu Deo Sai awarding Shram Virangana award to women employee of SAIL's Rourkela Steel Plant*



## CHAPTER-XV

An equal career growth opportunity to all employees irrespective of the gender is the hallmark of SAIL's Policy towards professional development of its employees. The growing number of women in senior positions is an indication of the fact that over the years, women would occupy some top positions in SAIL.

The Training Policy of the Company takes care of training and development needs of all its employees including the women employees through training needs analysis. Women employees are considered for specialized/technical/managerial training exposures in all areas in keeping with their career growth and job profiles.

### Benefits to Women Employees

Separate toilets have been provided at all locations where women employees are posted /engaged both in technical as well as non-technical areas. Washrooms, Canteens etc. for all employees in the Company's plants and units are available. Constant efforts are made for improving the hygiene conditions at workplace for all employees especially the women employees. The statutory compliance of the Company are also reflected in its Policies for women employees, such as, Maternity Leave, Child Care Leave benefits etc.

### Prevention of Sexual Harassment

Complaint Committees to prevent sexual harassment of women at workplace have been constituted at SAIL Plants/Units in terms of The Sexual Harassment of Women at Work Place (Prevention, Prohibition & Redressal) Act, 2013 and composition of the committee has been uploaded on the existing Intranet/ Web portal of the respective Plants/Units.

### Welfare of Women

SAIL has also taken a number of steps in various spheres for the larger benefit of the women in society. The activities range from, literacy programmes for girl child, awareness programmes on health, care, family planning, ante-natal services, organizing health camps, Informative programmes on AIDS Control. SAIL plants and units also have Mahila Samitis engaged in awareness initiatives on social issues as child labour/dowry, exploitation of women, support to economically weaker women towards being self-reliant through self-employment, education, involvement in awareness programmes etc.

## 15.3 Rashtriya Ispat Nigam Ltd. (RINL)

In RINL, Women employees constitute around 3% of its total workforce with around 6 % being executives and around 1% being non-executives. Women employees are working in diverse and challenging areas like Steel Melt Shops , Blast Furnaces, Projects etc.



*Organizing training programs towards self - reliance of women by RINL*





RINL-VSP facilitates the women workforce to be closely knit through the local cell of forum of Women in Public Sector (WIPS) formed in 1997.

The Cell has been associating in a number of activities for the development of women employees including, Development programmes for women employees, programmes on Networking & social skills and various other technical and managerial skills including Gender sensitivity programmes for sensitizing its employees on issues relating to employment of women. It has also been associated with some social support activities including CSR activities in the rehabilitation colonies viz Tailoring & Beautician Courses, Hand Embroidery, Fabric Painting, Saree Rolling, Literacy Programmes etc for women residing in rehabilitation colonies of Visakhapatnam.

Some of the notable milestones during Apr-Dec '14 are:

**Training & Development:** A record number of 609 employees were nominated for various training programs including technical and management development, seminars, conferences in the country / abroad.

**Welfare of women:** RINL has approved enhancement of maternity leave from the existing 84 days to 180 days.

"Happy Hours": The cell also runs a crèche titled "Happy Hours" in Steel Township for the working mothers.

**Sports & Games:** Nearly 100 women employees participated in the three day annual sports meet organised exclusively for the women employees.

**Communication:** Exclusive "Portal" was launched on the intranet which serves as a networking site for women employees of the company.

Seminars: conducted talks by eminent women achievers on International Woman's Day(March 8th) and on WIPS Formation Day (9th August) to motivate women employees.

## 15.4 NMDC Ltd.

NMDC Limited employs 280 women employees which constitute about 5.1% of its total manpower of 5507 (as on 31.12.2014). The company provides equal opportunities at all levels, be it selection, recruitment, placement or promotion. The number of women in senior positions is growing and it has one women independent Director on its Board.

In compliance to the directives of the Hon'ble Supreme Court guidelines relating to prevention of sexual harassment of women employees at work place, a complaints committee has been constituted in all the Projects and Head Office. The committee, headed by a woman employee meets periodically to review the status of the complaints received. No case of harassment has been reported so far.

Under its CSR programme, various initiatives have been taken up for the empowerment of women. Some of them are :

- NMDC Siksha Sahayog Yojana where scholarships are granted to the poor Tribal and SC students of Bastar region to continue academic pursuit beyond 8th class upto Graduation.
- Balika Siksha Yojana which is a focused initiative for the benefit of the tribal girl students of Bastar region under which NMDC sponsors the girl students for various academic and professional courses in Engineering, Medicine, BDS, Management, Nursing, Diplomas etc. The entire expenditure is being met by NMDC. In 2011-12, 25 tribal girls were admitted to Nursing courses in M/s Apollo Hospitals, Hyderabad and 10 more students were admitted in nursing courses in Colleges of Chhattisgarh. 40 girls are being sponsored every year since 2012-13.
- Skill Development for sustainable income generation is a programme taken up by NMDC as part of its initiative to generate sustainable income generation opportunities for tribal women of Bastar area in Chhattisgarh. Training is being imparted in Terrakota, Jute and Sisal, Bamboo and Bell metal crafts etc.

- Plans have been drawn to implement program to reduce malnutrition among adolescent girls and women in Dantewada and Kuwakonda blocks of Dantewada District, Chhattisgarh.
- Plans are also on the anvil to implement sustainable income generation program to bring the per capita income of Dantewada and Kuwakonda blocks of Dantewada District, Chhattisgarh at par with National Average. This will benefit many women of the area.

### 15.5 MOIL Ltd.

MOIL employees 821 women employees which constitute 12.67% of its total workforce of 6390 as on 31.12.2014.

In compliance of the directives of the Supreme Court guidelines relating to prevention of sexual harassment of women workers at work place, a Complaint Committee comprising of three officials including a lady doctor was constituted in the year 1999 & reconstituted in March, 2006. No case of any harassment has since been reported at any of the Mines of the Company or its Corporate Office. The directives have been widely circulated to bring awareness amongst the women workers.

Mahila Mandals are working effectively at all the Mines of the Company. Various cultural, social, educative and Community activities, such as adult education, blood donation camps, eye camps, family planning etc. are being organized regularly mostly for the benefit of the women residing in the remote mine areas.

Every year 8th March is celebrated as International Women Day and various programmes are organized to mark the day. Company grants Maternity Leave and Special Casual Leave for Family Planning.

As part of its CSR activities, Self Help Groups have been created at the mines which comprise women hailing from the remote villages. They are trained to make candles, washing powder, washing soaps, bamboo baskets, tailoring and various other vocational activities in order to make them self-reliant.

### 15.6 MSTC Ltd.

MSTC is a Corporate Life Member of Forum of Women in Public Sector (WIPS). An employee of the Company has been elected as the President of the Eastern Chapter of WIPS and 16 women employees have enrolled in WIPS this year. This has increased awareness about women empowerment in the Company. Several women employees were nominated for various programmes on women empowerment, prevention and redressal of sexual harassment of women at workplace, etc. Women employees were also encouraged to participate in events organized by WIPS.

Internal Complaints Committees (ICC) have been constituted at each of its offices. Various activities like awareness programmes, presentations, employee counseling, regular meetings of the ICC, etc. were undertaken by the Committee.

### 15.7 Ferro Scrap Nigam Ltd. (FSNL)

The women employees of FSNL are given due importance in all activities, including recognition of their abilities in various competitions/areas. The representation of female employees in various committees, such as committee for prevention of sexual harassment etc., is always ensured.

### 15.8 Hindustan Steelworks Construction Ltd. (HSCL)

There are 7 women employees in the Company as on 31.12.2014. These women employees are scattered in different Units. Most of the female workers are posted at Bokaro and Bhilai. No organized body of women employees exists in the Company. However, Management of the Company ensures that the interest and privilege of the women employees are protected. It is also ensured that they are not subjected to any sort of sexual harassment at the workplace.



### **15.9 MECON Ltd.**

There is a Committee constituted with a senior Lady Executive as its Chairperson to look into the grievance or complaints of women employees in the Company.

### **15.10 KIOCL Ltd.**

All necessary measures/statutory provisions for safeguarding the interests of women employees in matters like payment of wages, hours of work, health, safety and welfare aspects, maternity benefits etc. are being followed by the Company.

There are 29 women employees on rolls of the Company as on 31.12.2014.

In compliance to the provisions/requirements under the sexual harassment of women at workplace (Prevention, Prohibition and Redressal) Act, 2013, Internal complaints committees were constituted at Bangalore, Mangalore & Kudremukh units. To deal with complaints made by victims of sexual harassment. The Complaints Committee Comprises of a Senior level women executive as presiding officer, one male employee and one female employee as members from Non-governmental organization (NGO) as third party & member.

A Women's Forum - Women in Public Sector (WIPS) is operating in KIOCL and most of the women employees are members of the said Forum. KIOCL is a life Member for WIPS. Co-ordinators are being nominated on rotation basis from KIOCL to Liaison with the WIPS and women employees (Members) are being sent to attend Annual meets/ Regional meets of WIPS by the Company. On 8th March, 2014 International Women's Day was celebrated in a befitting manner.

### **15.11 Bird Group of Companies (BGC)**

BGC continues to accord due importance to gender equality. A Woman Grievance Cell is functioning in the Company to redress grievance of women employees. BGC is an equal opportunity employer and does not differentiate in terms of gender.

In BGC women employees constitute about 16.10% of its total workforce of 1375 employees as on 31.12.2014. To ensure empowerment of women, "Gender Budgeting Cells" with women representatives have been constituted.

## CHAPTER-XVI

### PROMOTION OF STEEL USAGE

#### 16.1 Promotion of Domestic Steel Consumption

It is observed that growth of steel consumption in India has taken place mostly at the urban segment where lots of developmental activities are taking place. On the other hand despite rapid increase in agricultural production in India, coupled with developments in the quality of rural life, the level of rural steel consumption has not been significant. Institute for Steel Development and Growth (INSDAG) has taken up a good number of activities/initiatives to enhance steel consumption and to create the awareness for more usage of steel in rural areas.

#### 16.2 Study for Assessment of Steel Demand in Rural India

In pursuance of the recommendations of the Parliamentary Standing Committee on demands for grants of the Ministry (PSC), the Ministry of Steel carried out a survey/ study through the Joint Plant Committee (JPC) to assess the demand for steel in rural India. The JPC submitted the final Report of this survey in July, 2011. The survey has come out with findings regarding average per capita consumption of finished steel in rural areas, trends of consumption of steel and future projections of steel in rural India. The survey collected the data for the purpose of analysis for the three years i.e.2006-07, 2007-08 and 2008-09 and assessment of rural steel demand for the periods 2011-12, 2016-17 and 2019-20. The average per capita consumption of finished steel in rural India was assessed at 9.78 kg. during the period 2007 to 2009, which is estimated to increase to around 12 kg. in 2020 based on increased penetration of steel products. This growth would be powered mainly by construction activities, largely at the household level but also by purchase of items such as items for professional use, furniture and vehicles. It is also expected that the demand for household items would decrease over the years. The major reason for the same is increasing replacement of steel by plastic for some of the major contributing items of that category.

The survey has also made recommendations for enhancing the consumption of steel in rural India such as shift in type of housing structure, re-looking steel design for various applications, investment in community structures, small and medium steel products manufacturing, highlighting advantages of steel, increasing aesthetics of steel, improving logistics & supply chain for steel and addressing steel quality issues.

The Ministry of Steel has formulated a roadmap for implementation of the recommendations made in the Survey and is taking necessary action thereon.

#### 16.3 Steps taken by SAIL to promote Usage of Steel

- SAIL has one of the largest networks of marketing offices among steel producers in the country which helps SAIL in meeting requirements of a wide range of customers in time. As on 1st January, 2014 SAIL has a network of 37 Branch Sales Offices, 27 Customer Contact Offices, 25 Departmental Warehouses and 24 Warehouses operated by Consignment Agents.
- SAIL also has an extensive dealer network consisting of 2864 dealers (including 1013 Rural Dealers) as on 1st December, 2014.
- Suitable incentive schemes are being operated to encourage dealers to improve their performance. Annual Dealer Award functions were held by each region during the year 2014-15 to felicitate high performing dealers. Dealer meets, architects meets and masons meets are held regularly for promotion of SAIL steel.
- SAIL participated in trade fairs and exhibitions during 2014-15 and highlighted various usages of steel. SAIL is also holding presentations by Cross Functional Teams to engage with the potential customers about its new mills which will be commissioned as part of its ongoing expansion and modernization.





## 16.4 Rashtriya Ispat Nigam Ltd. (RINL)

RINL makes efforts on continuous basis for promotion of steel usage through development and supplying of new products and improving Distribution Network for wider coverage. Efforts are made for developing new products to meet specific applications, which in turn help in promoting steel usage. The requirements of customers of new products / grades / sizes of steel products are captured through various interactions with the customers. In case it is found technologically feasible, these products are developed and supplied to the customers. New products/grades conforming to Indian Boiler Regulations (IBR) has been produced to meet the requirement of pipe manufacturers for Boiler Industry. In addition to this Cast Rounds also produced to cater to forging Industry. 9 new products from Existing units and 12 new products from Expansion units were developed during the period.

RINL has a Distribution Network consisting of 5 Regional Offices, 23 Branch Offices, 22 Stockyards and 6 Consignment Sales Agents. RINL has appointed 115 Retailers for supplying steel products in urban, semi-urban and rural areas.

With a view to popularizing usage of steel in rural areas, RINL introduced the Scheme of registration of District Level Dealers in Small Towns and Rural Dealers at Block and Panchayat Level locations. The process of registration of Rural Dealers is continuous and simple. Preference is given for the minorities and women entrepreneurs in the Rural Areas for the Rural Dealerships. Till the end of December 2014, RINL has 453 Rural Dealers spread across almost all the States and Union Territories in the country to supply steel products to the semi-urban and rural consumers.

RINL has started Marketing Contact Offices at Ranchi, Raipur, Trichy, Allahabad, Panaji, Jammu, Siliguri and Vijayawada.

In order to give thrust to exports, RINL has setup International Marketing Office (IMO) in Colombo, Sri Lanka and registered with Registrar General of Companies, Sri Lanka. All Statutory registrations and financial arrangements have been completed. Further, Letter Of Intent was issued to Conversion agent for conversion of Semis into TMT Bars and Structurals in Sri Lanka and sell in South East, Middle East and African countries apart from Sri Lanka.

## 16.5 Hindustan Steelworks Construction Limited (HSCL)

Based on the MOU signed between HSCL and Institute for Steel Development & Growth (INSDAG), HSCL has taken up and successfully completed implementation of INSDAG building in Kolkata with steel intensive design. The building has already been formally inaugurated. HSCL has plans to take up more projects in association with INSDAG to ensure increase in steel usage in India. Besides this, implementation of the Handloom Marketing Complex at Janpath, Delhi has also been completed by HSCL with steel structures in place of traditional RCC structures. This building has been formally inaugurated by Hon'ble Minister of Textiles.

## CHAPTER-XVII

### CORPORATE SOCIAL RESPONSIBILITY

#### 17.1. Introduction

Corporate Social Responsibility (CSR) is a concept whereby organizations serve the interests of society by taking responsibility for the impact of their activities on customers, employees, shareholders, communities and the environment in all aspects of their operations. Harnessing of natural resources has a direct impact on the economy, environment and society at large. CSR is thus linked with the practice of Sustainable Development.

Government of India has enacted the Companies Act 2013 in August 2013. Section 135 of the Companies Act, 2013 deals with the subject of Corporate Social Responsibility (CSR). It lays down the qualifying criteria based on net worth, turnover, and net profit for companies which are required to undertake CSR activities and, inter alia, specifies the broad modalities of selection, implementation and monitoring of the CSR activities by the Boards of Directors of Companies. The activities which may be included by companies in their CSR policies are listed in Schedule VII of the Act. The provisions of Section 135 of the Act and Schedule VII of the Act apply to all companies, including CPSEs.

The Ministry of Corporate Affairs has formulated CSR Rules under the provisions of the Act and issued the same on 27.2.2014. The CSR Rules are applicable to all Companies, including CPSEs w.e.f. 1.4.2014. Further, Department of Public Enterprises has issued Guidelines on Corporate Social Responsibility and Sustainability in October, 2014. All the CPSEs have been directed to scrupulously follow the above mentioned Act/Rules/Guidelines while allocating and spending funds under CSR.

Details of allocation and expenditure of funds under CSR are at Annexure XV.

#### 17.2 Steel Authority of India Ltd. (SAIL)

SAIL's Social Objective is synonymous with Corporate Social Responsibility (CSR). Apart from the business of manufacturing steel, the objective of the Company is to conduct business in ways that produce social, environmental and economic benefits to the communities in which it operates. For any organization, CSR begins by being aware of the impact of its business on society. With the underlying philosophy and a credo to make a meaningful difference in people's lives, SAIL has been structuring and implementing CSR initiatives right from the inception. These efforts have seen the obscure villages, where SAIL plants are located, turn into large industrial centers today.



*Free Mid Day Meals being provided to students of Government Schools in and around SAIL Townships*



SAIL CSR initiatives have always been undertaken in conformity to the prevalent statutes like revised DPE Guideline on CSR & Sustainability - 2013 and currently as per 'The Companies Act-2013'. SAIL's CSR projects are carried out in and around steel township, mines and far flung location across the country in the area of village development including development of Model Steel Villages (MSVs), Providing Medical and Health Care, Immunization, Ante and post natal care, Education, Access to water facilities, Construction of Roads, Road Side Drains & Street Lights, Environment, Women Empowerment, Assistance to people with disabilities, Sustainable Income Generation through Self Help Groups, Promotion of Sports, Art, Culture & Recreational Activities etc.

## 'Swachha Bharat Abhiyaan-Swachha Vidhyalaya Abhiyaan

SAIL has revised the CSR plan for 2014-15, after the Hon'ble Prime Minister's speech on the occasion of Independence Day. Substantial budget of Rs.20 crores during 2014-15 (Rs. 9 Cr for 2015-16) has been earmarked by the SAIL Board, towards the construction of toilets in schools under "Swachha Bharat- Swachha Vidyalaya Campaign". This campaign would be carried out in peripheral schools of SAIL Plants & Units in a phased manner.

## SAIL CSR Mission Projects

In view of changing CSR façade of the country, SAIL has also amended the CSR focus of the Company so that larger CSR projects are taken up which could have major impact on the target groups. CSR Mission Projects based upon the critical analysis/study of various parameters related to Socio-Economic Development of the targeted peripheral areas have been selected. SAIL's five Integrated Steel plants (ISPs) viz, BSP, DSP, RSP, BSL & ISP are undertaking 9 Mission Projects in the fields of education, sanitation, environment conservation, watershed development & skill development in accordance with the provisions made under Schedule VII of Companies Act, 2013.

### CSR Activities:

**Education:** To develop the society through education, SAIL has opened over 129 schools in the steel townships to provide modern education to more than 59,000 children and is providing assistance to over 629 schools with about 92,000 students. Seven Special Schools for BPL (Kalyan Vidyalaya) at integrated steel plant locations with facilities of free education, mid-day meals, uniform including shoes, text books, stationery items, school bag, water bottles and transportation in some cases are running under CSR. Besides running own schools and supporting schools in peripheral areas, SAIL in association with Akshya Patra Foundation is providing Mid-Day Meals to students of Govt. schools in and around Bhilai and Rourkela. Under this scheme, healthy & nutritious meal is being provided to more than 73000 students of around 550 Govt. schools every day.

**Healthcare:** SAIL's extensive & specialised Healthcare Infrastructure provides specialized and basic healthcare to more than 38.61 million people living in the vicinity of its plants and units. In order to deliver quality healthcare at the doorsteps of the needy, regular health camps in various villages on fixed days are being organized for the people living in the periphery of plants/units, mines & far-flung areas. During the last three years, over 9700 health camps have been organised benefiting more than 5.92 Lakh people. In 2013-14, more than 3000 Health camps were organized benefiting around 2.16 lakh people and during April-Sep, 2014, more than 2000 health camps have been organised benefiting over 72,600 people.

7 Health centres started at plants exclusively for providing free medical care including medicines to poor and needy families. Around 100,000 beneficiaries have availed of this medical healthcare every year in these Health Centres. The no. of people provided free medical healthcare in these Health Centres in 2013-14 were around 90,000 and during April-Sep, 2014, more than 82,000 people were provided free healthcare.

**Connectivity & water facilities:** SAIL has provided access to over 77.04 lakh people across 435 villages since inception by constructing and repairing of roads. It has provided access to water infrastructure to people living in far-flung areas by installing over 7625 water sources, thereby providing drinking water access to around over 42.70 lakh people.

**Disaster relief:** SAIL, as a responsible corporate citizen, supported the rehabilitation initiatives for the people affected by National & Natural Calamities, the recent being flood ravaged Jammu & Kashmir, Phyllin cyclone in Odisha, Flash Floods in Uttarakhand, etc.



**Sustainable Income generation:** Vocational and specialised skill development training targeted towards sustainable income generation has been provided to the village youth and women folk of peripheral villages, in areas such as Computers, Mobile repairing, Welder, Fitter & Electrician Training Improved agriculture, Mushroom cultivation, Goatery, Poultry, Fishery, Piggery, Achar / Pappad/ Agarbati making, Sewing & Embroidery, Smokeless Chullah making etc.

### 17.3 Rashtriya Ispat Nigam Ltd. (RINL)

DPE guidelines for CSR have been complied with and an amount of Rs.14.23 Cr was allotted for 2014-15 in line with the New Companies Act 2013. The CSR activities of RINL in the current year 2014-15 includes: health care, total literacy, vocational training, solar lighting, restoration of Hindu temples and Buddhist monasteries etc.



*Eye camps - Netra Jyoti Mobile Van*

Major activities taken up under different focus areas of CSR are shown below:

#### **Environmental care:**

- 'Green Visakha' - Plantation of 1,00,000 Block in the hillocks near Parawada & Madhurawada of Visakhapatnam.
- Surya - Solar energy initiatives - Solar power system was provided at St.Joseph Home for aged.

#### **Education:**

- Extending free education to children of BPL families of peripheral villages and at Jaggayyapet & Madharam Mines - benefitting about 2000 BPL children.
- Free education to differently abled children through Arunodaya Special School, Ukkunagaram - benefitting 75 children.
- Organizing adult literacy programs in 25 centers of 11 peripheral villages of VSP including 'Minumuluru' (tribal village near Paderu) covering 625 adults. This is a 6 months program in line with curriculum of State Govt.
- Distributing School Furniture, Plates and Glasses for mid-day meal scheme, Play equipment, Sports items & tri-cycle to children in Govt. schools in peripheral villages of VSP - benefitting 1109 children.

#### **Health care:**

- Organized various camps viz; Eye, Cancer detection, mega medical camps etc. to reach out to people in the interior villages:
  - ❖ 120 Eye Camps using 'Netrajyothi' Mobile Eye-care Van through Visakha Eye Hospital benefitting 11038 patients and 790 surgeries were done at free of cost.





- ❖ 3 Cancer Detection Camps using 'Sanjeevan' Lions care Hospital - benefitting 254 patients and 10 positive cases were referred for further treatment.
- ❖ Distributed wheel chairs (10nos.), artificial limbs (40nos.) & tri-cycles (5nos.) besides extending various services like General Medicine, Pediatrics, Diabetics, Orthopedics, Ophthalmology, ENT, Cardiac, Dental, Gynecology, Dermatology - benefitting 1050 patients
- Conducted free cataract operations for BPL families of peripheral villages by RINL Doctors at company's hospital- benefitting 317 patients

## People care:

- Community Drinking water system was inaugurated by Director (Personnel) at "Chepalapalem", a peripheral village near to VSP. Around 1000 people are benefitted with this system.
- Conducting vocational skill development programs viz; Dress making, Machine Embroidery, Hand Embroidery, Fabric Painting and Beauty culture etc, towards self - reliance of youth in peripheral villages of VSP and Mines areas - about 361 women were benefitted.
- Supplying drinking water to Rehabilitation colonies of VSP reaching about 13,000 beneficiaries per day, for a period of 4 months during summer.

In addition to the planned CSR activities, the following have also taken up in the present year:

- Swachh Bharat Programme for construction of toilets in schools.
- NTR Sujala - Drinking water scheme in the Rural areas of Visakhapatnam.
- Financial support to CM's Relief Fund, Andhra Pradesh, towards relief & restoration measures in the Hudhud Cyclone affected areas.

## 17.4 NMDC Ltd.

The status of CSR programmes undertaken/initiated by the Company are as follows:

- Integrated development work in progress in 18 villages in Bailadila.
- Free out-door & in-patient treatment facility was extended to 45043 & 4486 local tribals respectively during the year 2014-15 (Upto Nov-2014).



*Free of cost treatment of local tribals at NMDC hospital*

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- During 2014-15, 23,108 tribal villagers have been treated at the doorsteps in 37 villages (Upto Nov 2014).
- During the current academic year i.e. 2014-15, fourth batch of 40 girls have been sponsored in GNM & B.Sc. nursing courses at Apollo Hospitals, Hyderabad under NMDC's special education scheme-Balika Shiksha Yojana. Till date 104 students have been sponsored by NMDC for pursuing nursing courses.
- The Residential Public School started at Nagarnar in 2010 is running successfully with 444 no. of students.
- The ITI with Welder & Mason trades at Nagarnar with the intake of 28 students each year is functioning successfully
- The ITI at Bhansi with 5 trades is running successfully with the intake of 76 no. of students each year.
- The Polytechnic College at Dantewada established in 2010 with two streams i.e. Electrical & Mechanical with an intake of 126 students is running successfully. Construction of permanent building is in progress.

Plan to start 3 new trades from the ensuing year are under process.

- The Scholarship Scheme "NMDC Shiksha Sahayog Yojana" to motivate ST/SC students is in operation and during the year 2013-14, 16,705 scholarships have been awarded. And in the current year the number of scholarship recipients is likely to be 18000.
- Mid day meal programme covering 8000 rural school children in & around Donimalai Project is running successfully.
- Implementation of Education Improvement Program in 84 Schools of Dantewada block has come to a conclusion with improvement in student dropout rates. Follow up plan for implementation of Teachers Training Programme in these schools is in progress, with the proposed Programme likely to be launched shortly. Besides this, plans to implement Education Improvement Programme in 100 schools in Dantewada Districts are also under process and are likely to be grounded later in the next financial year.
- NMDC has partnered with State Govt. of Chhattisgarh for construction of Gaurav Path - 4 way lane at Dantewada and the same is nearing completion.
- Construction of 30 Community Centres in 30 villages of Bastar District is in progress
- Constructing Community centres at Rasoolpur, Barabanki in UP.
- Construction of 'Shanti Dham' - a home for destitute, mentally challenged and aged people has been completed in the current Financial Year. Work of providing additional infrastructure and equipment has been taken up at the 'Shanti Dham' premises.
- Construction of Regional Science Center at Bellary taken up in the year 2012 is nearing completion.
- Installation of forcelfit pumps, tanks & construction of 5000 ltr capacity RCC cisterns in 25 schools in Bijapur.
- Installation of 219 nos. of hand pumps attached fluoride removal plant in Bastar was taken up during 2013-14 in partnership with State Govt. of Chhattisgarh is in progress.
- NMDC has partnered with State Govt. of Chhattisgarh for providing Solar system based drinking water facility in (16+2) Ashrams and the same is in progress.
- Livelihood-linked skill development programs in Bamboo, Bell metal & Tumba art to provide livelihood generation training to 460 unemployed tribal youth of Bastar District in Chhattisgarh is in progress.



- NMDC has committed itself to the construction of toilets in 1544 schools in District of Bastar, Bijapur, Dantewada, Kondagaon, Narayanpur and Sukma, which do not have toilets, as per data available on the Ministry of HRD website under the Swachh Vidyalaya Campaign of Mission Swachh Bharat, as declared by Hon'ble Prime Minister.
- NMDC has also initiated a Cleanliness campaign in 16 villages around its Bailadila Projects, in order to bring about behavior change among the residents of the villages towards cleanliness, personal hygiene and sanitation under Mission Swachh Bharat over a period of 4 years.

## 17.5 MOIL Ltd.

Several schemes have been taken up and being implemented under CSR in the current Financial year which broadly includes:

- In the Education and skill development initiative Company is supporting five schools. Two Schools in District Balaghat of Madhya Pradesh and three Schools in Bhandara District of Maharashtra. Both the districts are notified backward districts of India. Schools are imparting quality education to children's who are residents of the villages of the surrounding areas and mostly come from poor families.
- For providing drinking water to villages in remote areas company has proposed to dig 50 Nos. bore wells.
- Company has tied up with NGO Suraj Eye Institute, and under its Light to Lives program free cataract surgeries, Pediatric eye Surgeries etc., are being performed on needy rural poor's.
- Company is taking up Community Development Programme across 21 Villages in three Districts, which includes Nagpur, Bhandara District of Maharashtra & Balaghat District of Madhya Pradesh. Company has entered in to a MoU with Maharashtra Institute of Technology Transfer for Rural Areas (MITRA).
- Company has also joined the Swachh Bharat- Swachh Vidyalaya Mission and has pledged to construct toilets in schools across four Districts of Madhya Pradesh, which includes Betul, Balaghat, Chhindwada & Seoni Districts. In all 102 toilets boys & girls in 80 schools are being constructed in F-Y 2014-15.
- Company has taken up various infrastructural development works like construction of Roads, community Halls, afforestation etc.

The Company has made a budget allocation of Rs. 1519.0.0 lakhs to be spent in this FY 2014-15.

## 17.6 MSTC Ltd.

During the year, MSTC has earmarked the entire CSR budget of Rs. 1.20 Crore towards construction of toilet blocks in the schools under Hon'ble Prime Minister's 'Swachh Bharat Mission'. For this purpose, thirty five (35) schools have been selected in the State of West Bengal, Madhya Pradesh and Chhattisgarh.

## 17.7 Ferro Scrap Nigam Ltd. (FSNL)

Under CSR Policy, FSNL provides infrastructural facilities in the nearby villages as well as in the identified Government schools in the nearby villages where FSNL's units are located. FSNL has identified Government Higher Secondary Schools situated in the village nearby FSNL's units at Rourkela, Burnpur, Bhilai, Bokaro, Visakhapatnam, Durgapur & Duburi (Orissa). On the basis of requirements received from these identified schools/Sarpanch of the villages, necessary assistance, infrastructural facilities etc. are provided by the company. The following CSR activities have been undertaken by FSNL during the year:

- Construction of 3 Toilet Blocks for Girl students in 3 schools of Durg District(Chattisgarh), with maintenance training & follow-up.
- Electricification & Acoustic work at Manas Bhavan, Durg(C.G.).

### 17.8 MECON Ltd.

MECON is engaged in rural/community development activities in the nearby surroundings since 60's. In the year 1976, a dedicated group was formed and named "Community Development Committee (CDC)" and were assigned to look after the activities of "Corporate Social Responsibility". Subsequently in the year 2010, "CSR Cell" was formed to coordinate the CSR activities of the organisation in association with other employees drawn from various sections as per requirement.

The major developmental activities carried out by MECON in the financial year 2014-15 are as follows:

#### Sanitation

- Construction of toilets under Swachh Vidyalaya Abhiyan in schools in various districts of Jharkhand.

#### Drinking water projects in villages and backward areas

- Construction of Water supply system in Village-Bar Toli, Pancha, District-Ranchi.
- Drinking water borewells in Naxal-hit backward villages & slum around Ranchi (15 nos.).

#### Mobile Health services

- Organising free Health check-up camps in Naxal-hit villages & backward areas of Jharkhand and distribution of medicines

#### Education

- Free education is being provided to the under-privileged poor children at 13 (thirteen) nos. Literacy Centres, which are running in the slum areas/backward areas in and around Ranchi (Jharkhand). No. of students in these centers is around 370.

#### Skill development for Women & Youth

- Free Stitching/Embroidery Training is being provided in 7 (seven) centres, which are running in slum/backward areas of Jharkhand. 95 students have been enrolled at these centres. Each centre is equipped with stitching machines and practice cloth/other accessories required for training have also been provided.
- Opening of 3 (three) new Stitching/Embroidery training centres in backward/rural areas of Jharkhand.
- Running of Vocational Training Institute, Ranchi for providing Free Vocational Training to the under-privileged youths, who are not able to continue their higher studies. The institute is affiliated to National Institute of Open Schooling (NIOS), New Delhi.
- Presently, the institute offers five types of course viz. Radio & TV technician, Electrical technician, Welding technology, Computer Applications and Yoga.
- Training to village youths for skill development, livelihood generation etc. in the field of plumbing/retail sales/beauty/hair care etc.

#### Projects for Differently abled (Visually/Physically challenged Persons)

- Creation of Infrastructure (Construction of 26-bedded Hostel building-1st floor for Blinds) at St. Michael's School for the Blind, Ranchi
- Creation of Infrastructure (Construction of Dormitory at 2nd floor for Blind Girls) at Braj Kishore Netraheen Balika Vidyalaya, Ranchi
- Training to the Visually challenged Girls of Braj Kishore Netraheen Balika Vidyalaya, Ranchi for Call Centre Operation





## Projects for Old Age Home, Orphanage etc.

- Installation of Safe Drinking Water facilities at Old Age Home in Village-Nagri, District-Ranchi
- Construction of Toilet Block at Old Age Home in Village-Nagri, District-Ranchi
- Development of Dormitory, Kitchen, Library, Training Centre etc. at an Orphanage in Naxal-hit village-Sungi, District-Khunti

## Environmental Sustainability

- Installation of Solar Street Lights in Naxalism affected backward villages & slums of Jharkhand
- Protection of Endangered species of plants & trees (3 nos. Kalpataru trees)

## Other Activities/Miscellaneous Programs

- Creation of Infrastructure (Construction of High School for tribals) at Village-Kudri, Dist.-Khunti
- Creation of Infrastructure (Construction of Class rooms) at Pramatha Nath Madhya Vidyalaya, Ranchi
- Creation of Infrastructure (Construction of CSR Pavilion) for promotion of local Art & Culture; CSR Meet with Beneficiaries; Health Camps for Slum Dwellers and marketing facilities for handicrafts etc. produced by underprivileged sections of society
- Upgradation of Infrastructure (Construction of rooms) at Chinmaya Mission, Ranchi. (for development for facilitating training camps)
- Construction of Akhra and construction of roof-slab & finishing work of community building of Village-Pandu Toli, District-Ranchi.

## 17.9 KIOCL Ltd.

KIOCL has earmarked an amount of Rs. 1.10 crores (Rupees one crores and ten lakhs only) towards CSR activities for the financial year 2014-15 for the projects/activities identified in pursuance to schedule VII and subsequent amendments of the Companies Act, 2013. Some of the major activities undertaken under CSR are as follows:

### Education

- Purified Drinking Water facility to Shri Vivekananda Vidya Kendra, Hoskote, Talujk, Bangalore-Karnataka
- Toilet facility to Schools under Swachh Bharath Abhiyan
- Assistance to Panda Niyoga Sanskrit Vidyalaya, Puri Bhubaneswar, Orissa.

### Health

- Assistance for portable handheld auto reflector to Sankara Eye Clinic, Bangalore.
- Sponsor of Cataract Surgery to Poor/Orphans.

### Environmental Sustainability

- Development of Tree Park for the conservation of endangered plant species of Western Ghats at Pilikula Nisargha Dhama, Mangalore.

### Community Development

- Survey and adoption of slums in the surrounding areas of Company establishment for community development of socially under privileged and economically weaker section of the Society.

### 17.10 Bird Group of Companies (BGC)

OMDC focuses on CSR activities like health, education, and supply of drinking water and community development. For the year 2014-15 an amount of Rs. 34.18 lakhs have been earmarked as CSR budget. OMDC allocates 3% of its net PAT as CSR budget. The CSR activities are carried out as per the DPE guidelines.

BSLC being a loss making company is not taking up any CSR activities at present as per the DPE guidelines.

EIL being a shell company has earmarked budget of Rs. 2.17 lakhs towards CSR activities for the year 2014-15.



## **CHAPTER-XVIII**

### **TECHNICAL INSTITUTES UNDER THE MINISTRY OF STEEL**

#### **18.1 Introduction**

Efforts are being made to constantly upgrade the technical skills of the workforce in the Steel Sector. The following institutes set up for the purpose deserve a mention for their worthwhile role and contribution:

#### **18.2 Biju Patnaik National Steel Institute (BPNSI)**

Based on the concept plan developed by a task force set up by the Ministry of Steel, a decision was taken to set up a National Steel Institute (NSI) at Puri, as a Training-cum-Service-cum-Research & Development centre. The Institute is registered under the Societies Registration Act and started functioning from January 1, 2002. The Chairman of JPC is also the Chairman of BPNSI. BPNSI was established to help the domestic secondary steel industry to keep up with the rapid transformation which the global and Indian steel industries have been undergoing. The Cabinet had on February 20, 2004 approved the setting up of BPNSI at Puri as a full-fledged institute with capital funding from JPC. As an initiative towards capacity building for the envisaged production capacity of 300 mtpa by 2025-26, the Ministry has constituted an Expert Committee to prepare a roadmap to upgrade it to National Centre of Excellence.

#### **18.3 National Institute of Secondary Steel Technology (NISST)**

The need for Human Resource Development and Technology Upgradation in the Secondary Steel Sector comprising mainly the steel melting units with Electric Arc Furnace (EAF) or Induction Furnace (IF), and the Re-Rolling units has been felt since long. A similar opinion was expressed by the Advisory Committee on Steel Rolling Industries, set up by the Ministry of Steel, Government of India in 1984. It was primarily based on these needs and also the demand from the industry, that the National Institute of Secondary Steel Technology was set up as a registered society on 18th August, 1987 under the Chairmanship of the then Development Commissioner for Iron & Steel and currently Joint Secretary, Ministry of Steel.

The following areas of secondary steel sector are under the purview of the Institute:-

- Electric Arc and Induction Furnace
- Ladle Refining
- Rolling Mills (Hot & Cold)
- Direct Reduced Iron Units

#### **Major Achievements:**

NISST is an ISO 9001-2000 Certified organization with NABL accredited laboratories. During the year 2014, the Institute achieved milestones and took initiatives as outlined below:

- The Job Oriented Certificate Course (JOCC) in Steelmaking and Rolling Technology run by NISST has provided more than 825 skill/ semi-skilled, supervisory level technical personnel to the secondary steel sector, thereby opening a new channel of employment.
- Metallurgical and mechanical testing has been conducted for various Govt. agencies/ constructors/ service providers on regular basis.
- NISST is continuously providing technical support to the secondary steel sector to improve quality, yield, value addition and cost reduction to meet the challenges.

- Organized Seminars, in-house trainings, Safety Awareness programmes and Workshops for the steel industry covering different parts of the country.
- NISST has been empanelled by Bureau of Energy Efficiency for conducting energy audits through its qualified and registered energy auditors. Energy audits of industries and buildings are being carried out with suggestive measure for energy conservation in the service to the nation.
- The institute also undertakes R&D projects on product, process and technology development. It has completed two such projects in the past and one on "Computer Simulation and e-Demonstration of Reheating Furnaces" is currently being carried out. Another project titled "Re-cycling & Re-usability of Iron Oxide sludge/powder" is under process. The projects undertaken are usually related to practical issues and problems faced by the industry. Hence, special emphasis may be given to support such projects for the benefit of SMEs of steel sector.
- NISST is taking up different assignments of the new UNDP project on "Up scaling Energy Efficient Product in Small Scale Steel Industry in India".
- Training and Skill Development for land losers in NMDC Iron & Steel Plant (NISP), Nagarnar (Jagdalpur) Chhattisgarh is under active consideration for commencement. NISST is also an active partner for Sector Skill Council on Steel of NSDC.
- NISST also represents in various BIS standardization committees for formulation/modification of different standards related to steel products.

### 18.4 Institute for Steel Development & Growth (INSDAG)

INSDAG promoted by Ministry of Steel and Major Steel Producers of India, is operating relentlessly towards promotion of steel intensive structures in construction and infrastructural sectors. In pursuance to its mission statement INSDAG continues to disseminate steel related information / knowledge through seminars / workshops / publications etc to professionals and academics alike, organize award competitions, explore and innovate new and better avenues of steel usage and provide specialized knowledge based services.

- INSDAG has actively participated in Revision of Important Steel related National Codes and development of New Codes for upgradation of construction materials and methodology.
- INSDAG conducted seven Refresher Courses, twelve training programmes and seven 21-days classroom and practical training programmes (residential) during the year.
- INSDAG developed a combined lecture / training module for Civil, Mechanical and Metallurgical Engineering students on Usages of Steel in Buildings & Infrastructures, Protection Systems and Advances of Joining Metallurgy & Quality Management of Products.
- INSDAG has also developed designs for model rural houses and model steel villages.





## **CHAPTER-XIX**

# **IMPLEMENTATION OF THE RIGHT TO INFORMATION ACT, 2005**

### **19.1 Introduction**

The Government of India enacted the Right to Information (RTI) Act, 2005 on June 15, 2005. The objective of the Act is to promote openness, transparency and accountability in the administration and to provide good governance in the country.

#### **Implementation of the RTI Act in the Ministry of Steel**

One Under Secretary level officer has been nominated as nodal officer for implementation of the RTI Act and its monitoring in the Ministry. The officers of the level of Under Secretary/Assistant Director/Assistant Industrial Adviser or equivalent level officers of the Ministry of Steel are designated as Central Public Information Officer (CPIO) and officers of level of Director/Deputy Secretary/Joint Director/Dy. Industrial Adviser or equivalent officers of Ministry of Steel are designated as Appellate Authority, respectively. In addition, two Assistant Public Information Officers (APIOs) have also been nominated. The Ministry also monitors the progress/implementation of the RTI Act in its PSUs/Companies and other organisations which are under its administrative control. The manual of 17 items, details of Appellate Authority/Central Public Information Officer, Assistant Public Information Officers have been hosted on the Ministry's website [www.steel.gov.in](http://www.steel.gov.in). Web portal for online filing of RTI applications has been launched by Department of Personnel and Training and the Ministry of Steel has been a part of online web portal w.e.f. 25.06.2013. During the year 2014-15 (up to 31st December, 2014), the Ministry of Steel has physically received 172 offline RTI applications and 1159 online RTI applications including appeals, which were duly disposed of within the prescribed time limit.

### **19.2 Steel Authority of India Ltd. (SAIL)**

An exclusive RTI Portal for SAIL has been developed and made available on SAIL Website. A manual containing 17 modules, details of Appellate Authority/Public Information Officer, Assistant Public Information Officers, Transparency Officers and names of SAIL Plants/Units with their categories, record retention schedules etc. are available on the RTI portal of SAIL website.

Every year Awareness Programs/workshops on 'Obligation of Public Authorities under RTI' are being organised at SAIL Corporate Office/Plants/Units and Information Commissioners are invited to these programs. In addition, Awareness Programmes on RTI Act are held at Plant and Units & Corporate office level regularly.

During the period 1.4.2014 to 31.12.2014, a total of 3909 applications and 563 appeals were received under RTI Act, 2005 in the company, all of which were disposed of within the prescribed time limit. Only 10 cases were referred to CIC and all cases have since been disposed of.

### **19.3 Rashtriya Ispat Nigam Ltd. (RINL)**

An exclusive RTI portal for RINL-VSP has been developed and information available in the 17 manuals of the RTI has been updated on company website in accordance with the requirement of section 4(1) (b) of Right to Information Act, 2005. Quarterly Returns, Annual returns on implementation of RTI Act, 2005 are being submitted regularly in the CIC portal.

A total of 422 requests have been received under the Right to Information Act, by RINL during the period 1st April, 2014 to 31st December, 2014. Out of the same, 342 requests have been disposed off by furnishing information to the seekers. 48 cases appealed to First Appellate Authorities, out of which 26 appeals are pending as on date. One case was appealed to CIC by the appellant and CIC had directed CPIO to allow the appellant to inspect the available documents within a period of 10 days.

## CHAPTER-XIX

### 19.4 NMDC Ltd.

NMDC has published on its website, [www.nmdc.co.in](http://www.nmdc.co.in) information under Section 4(1)(b) of the RTI Act 2005. Information is given to the maximum extent in the form in which it is asked for and in the local language as well, when needed. The number of RTI queries received and disposed off during April, 2014 to December, 2014:

Applications pending on 01.04.2014	Applications received during 01.04.2014 to 31.12.2014	Applications disposed off during 01.04.2014 to 31.12.2014	Applications pending as on 31.12.2014
10	127	110	21 (6 rejected)

### 19.5 MOIL Ltd.

MOIL has appointed PIOs at the Corporate Office and PIOs/APIOs have also been appointed in all its Mining Units. Executive Director (Tech.) has been appointed/designated as Appellate Authority under the Act. The names of all the PIOs/APIOs and the Appellate Authority have also been hosted in the Company's website [www.moil.nic.in](http://www.moil.nic.in). The information in respect of company, its employees etc. has been prepared under 17 heads as prescribed in Section 4(1) (b) of the RTI Act, and the same been hoisted in Company's portal. MOIL has been submitting necessary information and returns to the prescribed authorities and updating the same regularly.

The details of applications pending, received and disposed of, during the period 01.04.2014 to 31.12.2014 are as under:

Applications pending as on 01.04.2014	Applications received during 01.04.2014 to 31.12.2014	Applications disposed off during 01.04.2014 to 31.12.2014	Applications pending as on 31.12.2014
05	38	39	04

### 19.6 MSTC Ltd.

MSTC has nominated a CPIO and a PIO in the head office as well as every region/branch has a PIO and an APIO for effectively processing the RTI applications received at various locations of the company. RTI applications have been processed as per the provisions of the RTI Act. Quarterly reports have been submitted on-line. Provisions of RTI Act 2005 have been complied.

Applications pending as on 01.04.2014	Applications received during 01.04.2014 to 31.12.2014	Applications disposed off during 01.04.2014 to 31.12.2014	Applications pending as on 31.12.2014
Nil	43	40	03

### 19.7 Ferro Scrap Nigam Ltd. (FSNL)

FSNL has appointed a Public Information Officer (PIO) and one Assistant Public Information Officer at Corporate Office and one APIO each at its 8 Units. MD, FSNL is the first appellate authority under the RTI Act, 2005. The company has complied the information under 17 different templates/manuals/manuals for voluntary/suo-moto disclosure as required under Section 4(1) (b) of the Act and hosted the same on the company's website "[fsnl.nic.in](http://fsnl.nic.in)" and the information so published are being regularly updated. Quarterly reports are submitted to the CIC regularly.

The total number of RTI applications received during the period April 1, 2014 to December 31, 2014 was 21. Out of these, 20 applications have been disposed off.



## 19.8 Hindustan Steelworks Construction Ltd. (HSCL)

HSCL has nominated one (1) CPIO and sixteen (16) APIOs. CMD, HSCL is the first Appellate Authority under the Act for the Company. From 1.4.2014 to 31.12.2014, the summary statement of application received and disposal action taken is as under:

- Total No. of RTI application received : 38
- Total No. of RTI application disposed off by CPIO : 34
- Total No. of 1st appeal received : 14
- Total No. of 1st appeal disposed off by Appellate Authority : 12

## 19.9 MECON Ltd.

All the relevant manuals pertaining to RTI Act, 2005 have been hosted on "MECON's Website [www.meconlimited.co.in](http://www.meconlimited.co.in) w.e.f. 19th September, 2005. A Public Information Officer (PIO) and the 1st Appellate Authority have been nominated by MECON at its Headquarters and Assistant Public Information Officers (APIOs) have been nominated at various Regional and Site Offices. The queries coming to MECON from the public are being attended to by these nominated officials and replied back to them by the Public Information Officer within the stipulated time period. An Executive Director has been nominated as the Transparency Officer of MECON Limited. The status of applications received and processed during the year 2014-2015 (upto December,2014) under Right to Information Act, 2005 are given below:

Applications pending as on 01.04.2014	Applications received during 01.04.2014 to 31.12.2014	Applications disposed off during 01.04.2014 to 31.12.2014	Applications pending as on 31.12.2014
02	73	515	20

## 19.10 KIOCL Ltd.

KIOCL has appointed PIOs at the Corporate Office and PIOs/APIOs have also been appointed in all its Plants/other Units. Executives at the top level have been appointed/ designated as Appellate Authority under the Act. The names of all the PIOs/APIOs and the Appellate Authority have also been hosted on KIOCL's website [www.kioclltd.com](http://www.kioclltd.com). The obligation of the preparation of the manual prescribed in clause (b) sub-section (1) Section (4) has been complied with and these have also been hosted on KIOCL's portal and the same is being reviewed and updated at regular intervals.

Applications pending as on 01.04.2014	Applications received during 01.04.2014 to 31.12.2014	Applications disposed off during 01.04.2014 to 31.12.2014	Applications pending as on 31.12.2014
Nil	34	34	Nil

## 19.11 Bird Group of Companies (BGC)

The companies under Bird Group of Companies are complying with the Right to Information Act -2005. For receipt and replying to the RTI queries, a PIO and APIO have been nominated.

## CHAPTER-XX

### DEVELOPMENT OF NORTH-EASTERN REGION

#### 20.1 Introduction

The Ministry of Steel has been exempted from the requirement of earmarking 10% of its budgetary allocation for this purpose.

#### 20.2 Steel Authority of India Ltd. (SAIL)

The proposal for setting up a Steel Processing Unit (SPU) at Guwahati, Assam was approved in principle by SAIL Board in April, 2008. The proposed facilities and product-mix envisaged is TMT Bar Mill of 88,000 TPA. For the Project, 31 acres of land at Tilingaon in north Guwahati, near IIT Guwahati has been allotted to SAIL at a cost of Rs.7.97 crores. Survey of land has been completed. Barbed wire fencing of boundary, gate and security room completed. The project is unviable without concessions and benefits from the State Government. The concessions and benefits sought from the State Government is still awaited.

#### 20.3 Rashtriya Ispat Nigam Ltd. (RINL)

RINL is servicing the North Eastern Region directly through its Branch Sales Office (BSO) at Kolkata and the Consignment Sales Agents (CSAs) appointed at Guwahati and at Agartala to cater the demand of various customers in the region. BSO-Kolkata has appointed 25 Rural Dealers across the North-Eastern States.

In order to promote sales in the North Eastern Region, BSO Kolkata is extending incentive to Project Customers of the Region. RINL is also supplying steel products directly to Hydro-Electric, Road and other projects in the North Eastern Region through VSP's Stockyard at Kolkata and through the Retailers & rural dealers.

RINL/VSP-Kolkata sold 2,501 tonnes of Saleable Steel directly from Kolkata Stockyard to North-Eastern Region during April 2014 to December 2014.

#### 20.4 MSTC Ltd.

MSTC does not have any direct involvement with the North Eastern Region apart from the indirect involvement of selling scrap of Public Sector Units and Defence units, paramilitary forces situated in the North East such as Oil India Ltd., ONGC, BRPL, North Eastern Coalfields Ltd. etc. and Army units at Bengdubi, Hashimara, Jorhat etc. Generally, scrap of such units is purchased by local businessmen which indirectly benefits the region.

#### 20.5 Hindustan Steelworks Construction Ltd. (HSCL)

The Company has proud privilege of participating in the Bharat Nirman Programme of Government of India in construction of rural roads in the North Eastern State of Tripura under PMGSY. HSCL has been working as a Project Implementation Unit there with the responsibility starting from preparation of Detailed Project Report (DPR) to the maintenance of the roads for five years after construction.

The work has been taken up by HSCL as a Project Implementation Unit in phases under Public Works Department of Govt. of Tripura for establishing new connectivity and up gradation of existing roads in rural areas with population densities ranging from 250 to 1000+. The work involves activities from soil testing, survey and construction / up gradation including maintenance of the constructed roads for five years after handing over. HSCL is at present working in two Districts - Dhalai and North District. The summary of the projects under PMGSY in Tripura is as below:

Total value of work	: Rs. 924.52 Cr.
Total length	: 1073 Km.
Work completed	: 634 Km.

The PMGSY work in two Districts, North and Dhalai of Tripura, under five phases Phase IV, V, VI, VII,





VIII and IX, is going on under strict supervision and adequate security for the working personnel. A considerable number of links have already been opened to public. The value of work is likely to go up further in phases.

Apart from Rural Roads under PMGSY, the Company has successfully completed and handed over 3 Nos. of 150 bedded District Hospitals at Udaipur, Kailashahar and Kulai. The 100 bedded Hospital at Teliamura is nearing completion in spite of encountering some impediments. Trauma Care Centre and Staff Quarters at Kulai and Staff Quarters at Kailashahar are progressing well. The Polytechnic at Fulkumari, under PWD, has been completed and the Drainage work under Directorate of Urban Development is also progressing well.

North Eastern Region of the country has become one of the major areas of infrastructure development by HSCL.

HSCL has successfully completed the following two Projects in the North Eastern States of Sikkim, which will help in infrastructure and tourism development of the State:

- (i) Construction of Pilgrimage Centre at Solopok, involving installation of a 108 feet tall idol of Lord Siva and a number of shrines of Hindu deities at the hilly terrain of picturesque Sikkim. The 'Pranpratistha' has been done and the destination has been opened for the visitors.
- (ii) Cultural Centre at Yang Yang.

In other North Eastern States, the following major projects are also under implementation by HSCL

S. No.	Works
1.	Two nos. of Hospitals and two nos. of auditoriums in Mizoram
2.	Improvement, widening and strengthening of Weiloi-Rangblang road 40 Kms in Meghalaya
3.	Construction of godowns of FCI at Demapur, Nagaland
4.	Construction of battalion headquarters of ITBP at Tezpur and Itanagar
5.	Construction of Guwahati campus of TISS
6.	Construction of International Centre for Performing Arts and Culture at Shilong in Meghalaya under NLCPR
7.	Construction of 100 Blocks for Indoor Sports Hall under Rajiv Gandhi Khel Abhiyan (RGKA) at different States of North East
8.	International Multi Sports Stadia at Tura and Ampati respectively under State Sports Council Meghalaya

## CHAPTER-XXI

### INTERNATIONAL COOPERATION

International cooperation and collaboration is crucial for bringing the state-of-the-art technologies in the steel sector. In furtherance of this objective, the Ministry of Steel participated in various international meetings/conferences/seminars organised for development of iron and steel sector as per details given below:

- A delegation led by Hon'ble Deputy Minister of Industry, Mines and Trade of Islamic Republic of Iran met with Secretary (Steel) on 28th May, 2014 to follow-up the constructive negotiations between Companies of both the countries.
- A delegation led by the Ambassador of Islamic Republic of Iran met with Hon'ble Minister of Steel and Mines on 23rd December, 2014 to discuss support for business / trade relations with India.
- The Ambassador of Czech Republic met with Hon'ble Minister of Steel and Mines on 15th September, 2014 and discussed exploring possibilities of identifying areas of economic cooperation and strengthening bilateral cooperation between the two countries.
- A delegation led by State Minister of Economy of Republic of Poland accompanied by a business delegation visited to Ministry of Steel on 12th December, 2014 to meet with Hon'ble Minister of Steel and Mines. A high level Polish delegation led by Hon'ble Deputy Prime Minister and Minister of Economy of the Republic of Poland met with Hon'ble Minister of Steel and Mines during Gujarat Vibrant Summit on 11th January, 2015 in Ahmedabad, Gujarat and discussed building mutually beneficial relationships between Indian and Polish businesses and to cooperate in the field of mining, steel, education and research & development.



**ANNEXURE - I**

**LIST OF SUBJECTS ALLOCATED TO THE MINISTRY  
OF STEEL AS PER GOVERNMENT OF INDIA  
(ALLOCATION OF BUSINESS) RULES, 1961**

1. Planning, development and facilitation of setting up of iron and steel production facilities including Electric Arc Furnace (EAF) units, Induction Furnace (IF) units, processing facilities like re-rollers, flat products (hot/cold rolling units), coating units, wire drawing units and steel scrap processing including ship breaking.
2. Development of iron ore mines in the public sector and other ore mines (manganese ore, chrome ore, limestone, sillimanite, kyanite, and other minerals used in the iron and steel industry but excluding mining lease or matters related thereto).
3. Production, distribution, prices, imports and exports of iron and steel and ferro-alloys.
4. Matters relating to the following undertakings including their subsidiaries, namely:
  - (i) Steel Authority of India Limited (SAIL);
  - (ii) Rashtriya Ispat Nigam Limited (RINL);
  - (iii) Kudremukh Iron Ore Company Limited (KIOCL);
  - (iv) Manganese Ore (India) Limited (MOIL);
  - (v) National Mineral Development Corporation Limited (NMDC);
  - (vi) Metallurgical and Engineering Consultants (India) Limited (MECON);
  - (vii) Sponge Iron India Limited (SIIL);
  - (viii) Hindustan Steelworks Construction Limited (HSCL);
  - (ix) Bharat Refractories Limited (BRL);
  - (x) Metal Scrap Trade Corporation (MSTC);
  - (xi) Ferro Scrap Nigam Limited; and
  - (xii) Bird Group of Companies.

**ANNEXURE - II****MINISTER IN CHARGE AND OFFICER IN THE  
MINISTRY OF STEEL****(down to Deputy Secretary level)**

<b>Minister of Steel</b>	Shri Narendra Singh Tomar
<b>Minister of State for Steel</b>	Shri Vishnu Deo Sai
<b>Secretary</b>	Shri Rakesh Singh
<b>Additional Secretary &amp; Financial Adviser</b>	Shri Vinod Kumar Thakral Upto 12.03.2015 (FN)  Smt. Bharathi S. Sihag w.e.f. 12.03.2015
<b>Joint Secretaries</b>	Shri Sunil Barthwal Shri S. Abbasi Smt. Urvilla Khati
<b>Economic Adviser</b>	Shri Suraj Bhan
<b>Chief Controller of Accounts</b>	Shri P.L. Sahu
<b>Directors</b>	Shri D.B.Singh Shri H.L. Meena Shri T. Srinivas Shri Anupam Prakash Shri Mahabir Prasad Shri K.S. Samarendra Nath
<b>Deputy Secretary</b>	Smt. Molly Tiwari Shri Shailesh Kumar Singh, JD(OL)





## ANNEXURE - III

### PRODUCTION OF MAIN & OTHER PRODUCERS SUMMARY

('000 tonnes)						
S.No.	ITEM / PRODUCER	2010 - 11	2011-12	2012 - 13	2013 - 14	Apr-Dec 2014 (Prov)
<b>PRODUCTION</b>						
<b>I.</b>	<b>CRUDE STEEL :</b>					
	Main Producers	23543	23314	24417	25932	33677
	ASP + VISL	308	291	195	135	
	<b>Other Producers</b>					28715
	E.A.F.Units (incl.Corex & MBF/EOF)	23880	26750	28119	28047	
	Induction Furnaces	22941	23936	25685	27579	
	<b>Total Crude Steel</b>	<b>70672</b>	<b>74291</b>	<b>78416</b>	<b>81693</b>	<b>62392</b>
	% Share of Other Producers	66.3%	68.2%	68.6%	68.1%	46%
<b>II.</b>	<b>PIG IRON</b>					
	Main Producers	579	502	674	552	862
	Other Producers	5105	4869	6196	7398	5220
	<b>Production for Sale</b>	<b>5684</b>	<b>5371</b>	<b>6870</b>	<b>7950</b>	<b>6082</b>
	% Share of Other Producers	89.8%	90.7%	90.2%	93.1%	86%
<b>III.</b>	<b>SPONGE IRON</b>					
	Gas Based	6071	5166	3940	2683	1760
	Coal Based	19270	19805	19066	20189	14959
	<b>Total Sponge Iron</b>	<b>25341</b>	<b>24971</b>	<b>23006</b>	<b>22872</b>	<b>16719</b>
	% Share of Coal Based	76.0%	79.3%	82.9%	88.3%	89.5%
<b>IV.</b>	<b>FINISHED STEEL FOR SALE (Alloy/Non-Alloy) :</b>					
	<b>Main Producers</b>	<b>18407</b>	<b>17978</b>	<b>19244</b>	<b>22196</b>	<b>33988</b>
	<b>Other Producers</b>	<b>57890</b>	<b>66426</b>	<b>70376</b>	<b>73382</b>	<b>38180</b>
	<b>Less IPT/Own Consumption</b>	<b>7676</b>	<b>8708</b>	<b>7940</b>	<b>7903</b>	<b>6971</b>
	<b>Total finished steel for sale</b>	<b>68621</b>	<b>75696</b>	<b>81680</b>	<b>87675</b>	<b>65197</b>
	% Share of Other Producers	84.4%	87.8%	86.2%	83.7%	59%

Main Producers : SAIL, TSL, RINL; IPT : Inter Plant Transfer; Others : Majors (Essar, JSW Ispat, JSW Steel & JSPL) & EAF, IF, COREX-BOF

EAF : Electric Arc Furnace; MBF : Mini Blast Furnace; EOF : Energy Optimising Furnace

Please note that from 2014-15 JPC is reporting data by ISP Producers and Mini & Other Producers basis

ISP Producers are SAIL, RINL, TSL, Essar, JSW Steel & Jindal Steel & Power Ltd (JSPL). All others are categorised into 'Mini & Others' segment

## ANNEXURE - IV

### PRODUCTION OF CRUDE/LIQUID STEEL (By Producers)

(‘000 tonnes)															
P R O D U C E R	2010-11			2011-12			2012-13			2013-14			Apr-Dec 2014 (P)		
	Working	Production	% Utilisation	Working	Production	% Utilisation	Working	Production	% Utilisation	Working	Production	% Utilisation	Working	Production	% Utilisation
PUBLIC SECTOR															
B S P	3925	5329	136%	3925	4901	125%	3925	5008	128%	3925	5136	131%	2944	3526	120%
D S P	1802	1961	109%	1802	1914	106%	1802	2034	113%	1802	2019	112%	1352	1516	112%
R S P	1900	2160	114%	1900	2170	114%	1900	2209	116%	1900	2291	121%	1425	2047	144%
B S L	4360	3592	82%	4360	3647	84%	4360	3757	86%	4360	3776	87%	3270	2887	88%
I S P	500	411	82%	500	330	66%	500	135	27%	500	127	25%	375	13	3%
A S P	234	200	85%	234	200	85%	234	131	56%	234	122	52%	176	78	44%
S S P				180	96	53%	180	73	41%	180	91	51%	135	89	66%
V I S L	118	108	92%	118	91	77%	118	64	54%	118	13	11%	89	29	33%
TOTAL (SAIL) :	12839	13761	107%	13019	13349	103%	13019	13411	103%	13019	13575	104%	9764	10185	104%
R I N L	2910	3235	111%	2910	3128	107%	2910	3071	106%	2910	3202	110%	2183	2396	110%
TOTAL : (Public Sector)	15749	16996	108%	15929	16477	103%	15929	16482	103%	15929	16777	105%	11947	12581	105%
(Public Sector)															
PRIVATE SECTOR															
Tata Steel Ltd	6800	6856	101%	6800	7128	105%	9600	8130	85%	9600	9155	95%	7200	6892	96%
Majors	18433	14549.03	79%	25540	17015	67%	25540	18424	72%	25540	18308	72%	19155	14204	74%
Other E A F Units/	9140	9332	102%	11580	9735	84%	12010	9695	81%	13458	9874	73%	10094	7696	76%
Corex-BOF/MBF-Eof															
INDUCTION	30241	22939	76%	31017	23936	77%	33945	25685	76%	36494	27579	76%	27371	21019	77%
FURN. UNITS															
TOTAL : (Private Sector)	64614	53676.03	83%	74937	57814	77%	81095	61934	76%	85092	64916	76%	63819	49811	78%
GRAND TOTAL :	80363	70672.03	88%	90866	74291	82%	97024	78416	81%	101021	81693	81%	75766	62392	82%

Majors = Essar, Ispat, JSW Steel Ltd &amp; JSPL



**ANNEXURE - V**

<b>PRODUCTION OF CRUDE/LIQUID STEEL (By Route)</b>					
('000 tonnes)					
<b>CATEGORY</b>	<b>2010 - 11</b>	<b>2011 - 12</b>	<b>2012 - 13</b>	<b>2013 - 14</b>	<b>Apr-Dec 2014 (Prov)</b>
<b>OXYGEN ROUTE</b>					
B S P	5329	4901	5008	5136	3526
D S P	1961	1914	2034	2019	1516
R S P	2160	2170	2209	2291	2047
B S L	3592	3647	3757	3776	2887
I S P	411	330	135	127	13
S S P		96	73	91	89
V I S L	108	91	64	13	29
R I N L	3235	3128	3071	3202	2396
T S L	6856	7128	8130	9155	6892
JSW Steel Ltd.	6508	7442	8518	9257	7622
Other Oxygen Route	486	379	350	455	420
<b>TOTAL OXYGEN ROUTE :</b>	<b>30646</b>	<b>31226</b>	<b>33349</b>	<b>35522</b>	<b>27437</b>
<b>ELECTRIC ROUTE</b>					
<b>ELECTRIC ARC FURNACE</b>					
A S P	200	200	131	122	78
Essar Steel Ltd.	3392	4348	4163	3245	2327
JSW Ispat Ltd.	2377	2466	2711	2971	2254
Jindal Steel & Power Ltd.	2270	2759	3032	2836	2001
Lloyds Steel Ltd.	553	620	601	566	500
Jindal Stainless Ltd.	703	752	1107	1111	893
Bhushan Steel Ltd.	-	-	-	1084	973
Bhushan Power & Steel Ltd.	-	-	-	1714	1248
Other Electric Arc Furnace	7590	7984	7637	4944	3662
<b>TOTAL ELECTRIC ARC FURNACE :</b>	<b>17085</b>	<b>19129</b>	<b>19382</b>	<b>18593</b>	<b>13936</b>
<b>ELECTRIC INDUCTION FURNACE</b>	<b>22941</b>	<b>23936</b>	<b>25685</b>	<b>27579</b>	<b>21019</b>
<b>TOTAL ELECTRIC ROUTE :</b>	<b>40026</b>	<b>43065</b>	<b>45067</b>	<b>46172</b>	<b>34955</b>
<b>GRAND TOTAL :</b>	<b>70672</b>	<b>74291</b>	<b>78416</b>	<b>81694</b>	<b>62392</b>

## ANNEXURE - VI

PRODUCTION OF HOT METAL						
('000 tonnes)						
	PLANTS	2010 - 11	2011 - 12	2012 - 13	2013 - 14	Apr-Dec 2014 (Prov)
<b>A.</b>	<b>PUBLIC SECTOR</b>					
	BHILAI STEEL PLANT	5708	5126	5202	5377	3717
	DURGAPUR STEEL PLANT	2143	2099	2241	2191	1693
	ROURKELA STEEL PLANT	2303	2309	2366	2538	2291
	BOKARO STEEL LTD	4108	4012	4124	4100	3216
	IISCO STEEL PLANT	495	451	231	220	229
	VISVESVARAYA I & S PLANT	131	118	94	21	43
	RASHTRIYA ISPAT NIGAM LTD.	3830	3778	3814	3769	2744
	SUB TOTAL (A) :	18718	17893	18072	18216	13933
<b>B.</b>	<b>PRIVATE SECTOR</b>					
	TATA STEEL LTD.	7503	7746	8858	9898	7484
	MINI BLAST FURNACE	16713	19061	21764	24342	19608
	SUB TOTAL (B) :	24216	26807	30622	34240	27092
	TOTAL (A+B) :	42934	44700	48694	52456	41025
	% SHARE OF PRIVATE SECTOR	56.4%	60.0%	62.9%	65.3%	66.0%





**ANNEXURE - VII**

<b>PRODUCTION OF PIG IRON (For Sale)</b>						
('000 tonnes)						
	<b>PLANTS</b>	<b>2010 - 11</b>	<b>2011 - 12</b>	<b>2012 - 13</b>	<b>2013 - 14</b>	<b>Apr-Dec 2014 (Prov)</b>
<b>A.</b>	<b>PUBLIC SECTOR</b>					
	BHILAI STEEL PLANT	58	7	14	0	3
	DURGAPUR STEEL PLANT	21	7	3	38	44
	ROURKELA STEEL PLANT	15	9	0	87	83
	BOKARO STEEL PLANT	143	26	84	40	84
	IISCO STEEL PLANT	21	49	65	55	235
	VISVESVARAYA I & S PLANT	3	9	15	5	7
	RASHTRIYA ISPAT NIGAM LTD.	318	395	493	327	167
	<b>SUB TOTAL (A) :</b>	<b>579</b>	<b>502</b>	<b>674</b>	<b>552</b>	<b>623</b>
<b>B.</b>	<b>PRIVATE SECTOR</b>					
	OTHER BLAST FURNACE/ COREX UNIT	5104	4869	6196	7398	5 4 5 9
	<b>SUB TOTAL (B) :</b>	<b>5104</b>	<b>4869</b>	<b>6196</b>	<b>7398</b>	<b>5459</b>
	<b>TOTAL (A+B) :</b>	<b>5683</b>	<b>5371</b>	<b>6870</b>	<b>7950</b>	<b>6082</b>
	<b>%AGE SHARE OF PRIVATE SECTOR</b>	<b>89.8%</b>	<b>90.7%</b>	<b>90.2%</b>	<b>93.1%</b>	<b>89.8%</b>

## ANNEXURE - VIII

PRODUCTION FOR SALE OF FINISHED STEEL (Non-Alloy & Alloy Steel)						
						('000 tonnes)
	PLANTS	2010 - 11	2011-12	2012 - 13	2013 - 14	Apr-Dec 2014 (Prov)
<b>A.</b>	<b>PUBLIC SECTOR</b>					
	BHILAI STEEL PLANT	3574	3279	3614	3470	2359
	DURGAPUR STEEL PLANT	673	621	612	620	451
	1963	1994	2041	2111	2057	1563
	BOKARO STEEL PLANT	3344	3128	3274	3330	2430
	IISCO STEEL PLANT	328	221	134	186	36
	ALLOY STEEL PLANT	51	46	40	9	5
	SALEM STEEL PLANT	273	298	270	375	266
	VISVESVARAYA I & S PLANT	84	58	47	25	25
	SAIL- CONVERSION AGENT	-	-	-	556	397
	RASHTRIYA ISPAT NIGAM LTD.	2928	2831	2717	2811	1849
	<b>SUB TOTAL (A) :</b>	<b>13249</b>	<b>12523</b>	<b>12819</b>	<b>13439</b>	<b>9381</b>
<b>B.</b>	<b>PRIVATE SECTOR</b>					
	TATA STEEL LTD	5157	5456	6427	8756	6600
	MAJORS	19257	21955	23220	22965	18006
	OTHERS	38632	44472	47156	50417	38180
	<b>Less Own Consump.(Majors &amp; Others)</b>	<b>7675</b>	<b>8708</b>	<b>7940</b>	<b>7902</b>	<b>6971</b>
	<b>SUB TOTAL (B) :</b>	<b>55371</b>	<b>63175</b>	<b>68863</b>	<b>74236</b>	<b>55815</b>
	<b>TOTAL PRODUCTION FOR SALE(A+B)</b>	<b>68620</b>	<b>75698</b>	<b>81682</b>	<b>87675</b>	<b>65196</b>
	<b>%age SHARE OF PRIVATE SECTOR</b>	<b>80.7%</b>	<b>83.5%</b>	<b>84.3%</b>	<b>84.7%</b>	<b>85.6%</b>

**CATEGORY-WISE PRODUCTION FOR SALE OF FINISHED STEEL (Non - Alloy + Alloy)**

('000 tonnes)																
CATEGORY	2010 - 11				2011 - 12				2012 - 13				2013 - 14			
	Main Prods	Major + Other Prods	IPT / Own Consu	Production for Sale	Main Prods	Major + Other Prods	IPT / Own Consu	Production for Sale	Main Prods	Major + Other Prods	IPT / Own Consu	Production for Sale	Main Prods	Major + Other Prods	IPT / Own Consu	Production for Sale
1. Non-Flat Products																
Bars & Rods	5792	20124	3	25913	5579	22695	172	28102	5803	23128	137	28794	7399	22686	535	29550
Structurals / Spl.Sec.	798	3755		4553	707	4233	1	4939	661	5271		5932	864	6032		6896
Rails & Rly. Materials	898	27		925	901	9		910	881	57		938	822	65		887
TOTAL (Non - flat product)	7488	23906	3	31391	7187	26937	173	33951	7345	28456	137	35664	9085	28783	535	37333
2. Flat Products																
Plates	2593	2028	4	4617	2480	2203	17	4666	2426	1831	95	4162	2497	1481	82	3896
H R Coils/Skelp/Strips	5210	11940	4012	13138	5433	14934	3917	16450	6678	16418	3706	19390	7686	17333	4213	20806
H R Sheets	265	333	27	571	217	320		537	195	391	31	555	197	724	2	919
C R Coils/Sheets/Strips	1778	7918	2975	6721	1658	9416	4036	7038	1584	9564	3494	7654	1721	8945	2944	7722
GP/GC Sheets	671	4910	25	5556	659	5261	238	5682	710	5650	73	6287	739	6235	75	6899
Elec.Sheet	77	75		152	63	87		150	72	83		155	69	57		126
Tin Plates	7	223		230	12	241		253	8	293		301	7	337		344
T M B P	0	0		0	0	4		4	0	5		5	0	3		3
Tin Free Steel	0	16		16	0	15		15	0	16		16	0	12		12
TOTAL (Flat Products)	10601	27443	7043	31001	10522	32481	8208	34795	11673	34251	7399	38525	12916	35127	7316	40727
3. Pipes (Large dia)	84	1775		1859	77	1877		1954	75	1931		2006	63	1915		1978
TOTAL Finished Steel (Non - Alloy)	18173	53124	7046	64251	17786	61295	8381	70700	19093	64638	7536	76195	22064	65825	7851	80038
TOTAL Finished Steel (Alloy / Stainless Steel)	235	4765	630	4370	193	5132	326	4999	151	5738	404	5485	132	7557	52	7637
TOTAL Finished Steel (Non - Alloy + Alloy)	18408	57889	7676	68621	17979	66427	8707	75699	19244	70376	7940	81680	22196	73382	7903	87675

## ANNEXURE - IX (Contd.)

CATEGORYWISE PRODUCTION FOR SALE OF FINISHED STEEL (Non - Alloy + Alloy)					
('000 tonnes)					
APRIL-DECEMBER: 2014-15 (Prov)					
CATEGORY	ISP Producers	Mini & Other Producers	Gross Production	Less : IPT / Own Consumption	Production for Sale
<b>Non-Alloy, Non-Flat Finished Steel</b>					
1. Bars & Rods	6997	15934	22931	32	22899
2. Structurals	1051	4056	5107	0	5107
3. Rly. Materials	627	0	627	0	627
Total Non - Flat ( 1 to 3)	8675	19990	28665	32	28633
<b>Non-Alloy Flat Finished Steel</b>					
4. Plates	2664	367	3031	0	3031
5. H.R.Coils / Skelp	15216	2744	17960	4247	13713
6. H.R.Sheets	502	7	509	0	509
7. C.R.Sheets / Coils	4086	4481	8567	2397	6170
8. GP / GC Sheets	2317	2875	5192	0	5192
9. Elec. Sheets	51	63	114	0	114
10. Tinplate (incl. ww)	0	211	211	0	211
11. TMBP	0	4	4	0	4
12. Pipes (Large Dia.)	158	1367	1525	0	1525
13. Tin free Steel	0	12	12	0	12
14. Total Flat (4 to 13)	24994	12131	37125	6644	30481
15. Total Non - Alloy Finished Steel (1-14)	33669	32121	65790	6676	59114
16. Total Alloy Finished Steel	319	6059	6378	295	6083
<b>Total Finished Steel (15+16)</b>	<b>33988</b>	<b>38180</b>	<b>72168</b>	<b>6971</b>	<b>65197</b>

Note :

- From April 2014 onwards the definition of Main & Major Producers will reported as Integrated Steel Plants (ISP).
- For Statistical purpose all the plants of the ISP Producers are reported under ISP Producers. The ISP Producers are SAIL, RINL, TSL, ESSAR, JSWL & JSPL.
- But the individual plants of ISP producers like IISCO, ASP, SSP & VISL plants of SAIL, Vasind, Tarapur & Kalmeshwar plants of JSWL and Patrattu plants of JSPL are not ISP Plants.





## ANNEXURE - X

CATEGORY-WISE IMPORT OF IRON & STEEL						
('000 tonnes)						
Sl.No.	Category	2010 - 11	2011-12	2012 - 13	2013 - 14	Apr-Dec 2014-15 (Prov)
<b>I</b>	<b>Semi-finished Steel(Non-Alloy)</b>					
	Semis	240.8	514.4	517.5	43.2	218.6
	Re-rollable Scrap	94.0	213.1	243.9	208.1	257.2
<b>II</b>	<b>Finished Steel(Non-Alloy)</b>					
	Bars & Rods	438.0	425.1	514.5	294.3	701.9
	Structurals	81.3	63.1	90.9	43.0	44.1
	Rly.Materials	12.3	12.1	18.8	4.4	15.0
	Plates	802.1	661.2	861.6	409.92	514.4
	HR Sheets	66.5	53.6	122.5	102.13	62.6
	HR Coils/skelp/Strips	2346.0	1812.9	1871.6	1104.26	1331.5
	CR Coils/Sheets	1148.1	1456.6	1568.6	1278.9	1240.3
	GP/GC Sheets	353.1	368.0	432.7	368.08	332.1
	Elec.Sheets	317.4	275.7	386.7	346.53	310.4
	TMBP	1.2	1.3	0.9	0.8	1.3
	Tin Plates	136.0	119.7	142.7	160.5	146.8
	Tin Plates W/W	33.7	30.3	41.1	27.91	15.6
	Tin Free Steel	56.1	50.3	66.3	56.52	64.4
	Pipes	37.8	107.8	134.4	101.39	102.2
	TOTAL Fin. Steel (Non-Alloy)	5829.5	5437.7	6253.1	4298.6	4882.6
	TOTAL STEEL (Non-Alloy)	6164.3	6165.2	7014.5	4549.9	5358.4
	Alloy/Stainless Steel					
	Non-Flat Alloy	198.7	259.5	352.5	236.6	509.3
	Flat Alloy	635.6	1165.1	1319.1	914.6	1101.9
	Semi-finished Alloy	4.0	15.0	31.1	7.1	22.8
	TOTAL FIN. STEEL (Alloy)	834.3	1424.6	1671.6	1151.2	1611.2
	TOTAL STEEL (Alloy)	838.3	1439.6	1702.8	1158.3	1633.9
	<b>TOTAL FIN. STEEL (Alloy+Non-Alloy)</b>	<b>6663.8</b>	<b>6862.3</b>	<b>7924.7</b>	<b>5449.8</b>	<b>6493.8</b>
	<b>TOTAL Steel (Non-Alloy + Alloy)</b>	<b>7002.6</b>	<b>7604.8</b>	<b>8717.2</b>	<b>5708.2</b>	<b>6992.3</b>
<b>III</b>	<b>Other Steel Items.</b>					
	Fittings	55.3	544.7	340.0	298.0	273.18
	Misc.Steel Items	1222.5	1789.3	2293.7	3402.9	1558.11
	Steel Scrap	3616.6	5719.8	7772.7	4926.7	4455.27
<b>IV</b>	<b>Iron</b>					
	Pig Iron	8.9	8.3	20.6	34.2	17.89
	Sponge Iron	0.2	0.1	0.2	7.3	17.43
	H.B.Iron	0.0	302.6	0.1	0.0	0
<b>V</b>	<b>Ferro-Alloys</b>	133.5	142.4	179.6	140.5	186.12
	<b>GRAND TOTAL :</b>	<b>12039.6</b>	<b>16111.9</b>	<b>19324.2</b>	<b>14517.8</b>	<b>13500.3</b>

## ANNEXURE - XI

CATEGORY-WISE EXPORTS					
('000 tonnes)					
CATEGORY	2010 - 11	2011-12	2012 - 13	2013 - 14	Apr-Dec 2014-15 (Prov)
<b>SEMIS (Non-Alloy)</b>	350.0	198.2	142.7	484.2	330.9
<b>Finished Steel (Non-Alloy)</b>					
<b>Non-Flat</b>					
Bars & Rods	136.0	225.1	413.1	585.1	270.4
Structurals	37.0	44.5	60.6	64.7	55.4
Railway Materials	6.0	41.8	2.7	1.2	2.3
<b>Total Non-Flat</b>	<b>179.0</b>	<b>311.4</b>	<b>476.4</b>	<b>651.0</b>	<b>328.2</b>
<b>Flat</b>					
Plates	235.1	374.0	246.3	154.9	330.1
H R Coils/Sheets	533.8	1277.3	1878.3	2130.2	989.3
C R Sheets/Coils	283.0	295.3	411.9	560.6	418.4
GP/GC Sheets	1312.3	1443.1	1543.8	1821.7	1218.8
Elec. Sheets	1.3	1.2	7.0	9.9	6.3
Tinplates	60.4	28.6	54.6	70.1	32.7
Tin Free Steel	1.6	2.1	1.2	0.5	0.2
Pipes	608.0	470.8	136.7	109.3	174.8
<b>Total Flat</b>	<b>3035.5</b>	<b>3892.4</b>	<b>4279.7</b>	<b>4857.4</b>	<b>3170.7</b>
<b>Total Fin. Steel (Non-Alloy)</b>	<b>3214.5</b>	<b>4203.9</b>	<b>4756.1</b>	<b>5508.4</b>	<b>3498.8</b>
<b>Total Steel (Non-Alloy)</b>	<b>3564.5</b>	<b>4402.0</b>	<b>4898.8</b>	<b>5992.6</b>	<b>3829.7</b>
<b>Non-Flat Alloy</b>	<b>266.9</b>	<b>237.2</b>	<b>215.8</b>	<b>227.9</b>	<b>275.4</b>
<b>Flat Alloy</b>	<b>155.2</b>	<b>146.6</b>	<b>396.2</b>	<b>249.1</b>	<b>294.4</b>
<b>Total Finished Steel (Alloy)</b>	<b>422.1</b>	<b>383.8</b>	<b>612.0</b>	<b>477.0</b>	<b>569.8</b>
Semi-Finished Alloy	0.0	3.3	1.5	2.0	1.3
<b>Total Steel (Alloy)</b>	<b>422.1</b>	<b>387.2</b>	<b>613.5</b>	<b>479.0</b>	<b>571.0</b>
<b>Total Fin. Steel (Non-Alloy+Alloy)</b>	<b>3636.6</b>	<b>4587.7</b>	<b>5368.1</b>	<b>5985.3</b>	<b>4068.6</b>
<b>Total Steel (Non-Alloy + Alloy)</b>	<b>3986.6</b>	<b>4789.2</b>	<b>5512.3</b>	<b>6471.6</b>	<b>4400.7</b>
Pig Iron	358.0	490.9	414.1	943.1	384.7
Sponge Iron	20.1	53.7	58.1	74.0	64.9



ANNEXURE - XII

**POSITION OF IMPLEMENTATION OF THE  
JUDGEMENTS / ORDERS OF THE CENTRAL  
ADMINISTRATIVE TRIBUNAL**

There are no judgements/orders of the Central Administrative Tribunal pending for prompt implementation in respect of the Ministry of Steel.

## ANNEXURE - XIII

## COMPARATIVE PBT (PROFIT BEFORE TAX) OF STEEL PSUs

(Rs. in crores)

Sl. No.	PSU/Company	2011-12	2012-13	2013-14	2014-15* (Apr-Dec)	2014-15 (Jan-Mar) (Estimated)
1	SAIL	5150.87	3240.66	3225.00	2083.72	NA
2	RINL	1110.01	526.47	549.15	14.82	101.52
3	NMDC	10759.47	9465.12	9759.20	7704.00	2252
4	MOIL	606.63	636.78	769.33	469.32	86.39
5	MSTC	176.15	193.40	(-)107.37	73.63	37.46
6	FSNL	2.03	2.53	12.43	1.85	15.20
7	OMDC\$	8.28	26.25	16.74	20.89	2.30
8	EIL ##	2.22	1.96	0.24	(-)12.73	0.18
9	MECON	201.54	150.73	68.69	(-) 70.12	21.77
10	KIOCL	115.39	32.34	61.40	8.73	36.95
11	HSCL	(-) 28.08	(-) 19.81	(-)18.67	(-)0.60	(-)8.40
12	BSLC\$	(-)6.86	(-) 18.14	(-)18.77	(-)21.68	(-)7.25
	<b>Total</b>	<b>18097.65</b>	<b>14238.29</b>	<b>14317.37</b>	<b>10271.83</b>	<b>2538.12</b>

\*Provisional

## Eastern Investment Ltd. (EIL), \$ Orissa Mineral Development Company Limited (OMDC), Bisra Stone Lime Company Limited (BSLC) are constituents of the Bird Group of Companies.





ANNEXURE - XIII (A)

## COMPARATIVE PAT (PROFIT AFTER TAX) OF STEEL PSUs

(Rs. in crores)

Sl. No.	PSU/Company	2011-12	2012-13	2013-14	2014-15* (Apr-Dec)	2014-15 (Jan-Mar) (Estimated)
1	SAIL	3542.72	2170.35	2616.00	1758.46	NA
2	RINL	751.46	352.83	366.45	13.49	67.01
3	NMDC	7265.39	6342.37	6420.08	5075.00	1497.00
4	MOIL	410.77	431.72	509.56	309.80	57.03
5	MSTC	118.39	130.73	(-)70.03	48.60	24.72
6	FSNL	1.37	1.96	8.42	1.23	10.29
7	OMDC \$	3.44	12.86	6.26	14.45	1.60
8	EIL ##	1.69	1.47	0.09	(-)12.76	0.16
9	MECON	136.37	101.03	49.48	(-)70.51	22.16
10	KIOCL	94.30	31.05	39.93	5.83	24.67
11	HSCL	(-)28.08	(-) 19.81	(-)18.67	(-)0.60	(-)8.40
12	BSLC\$	(-)6.86	(-) 18.14	(-)18.77	(-)21.68	(-)7.25
	<b>Total</b>	<b>12290.96</b>	<b>9538.42</b>	<b>9908.8</b>	<b>7121.31</b>	<b>1688.99</b>

\*Provisional

## Eastern Investment Ltd. (EIL), \$ Orissa Mineral Development Company Limited (OMDC), Bisra Stone Lime Company Limited (BSLC) are constituents of the Bird Group of Companies.

## ANNEXURE - XIV

## CONTRIBUTION MADE TO THE CENTRAL GOVERNMENT AND GOVERNMENT INSURANCE COMPANIES BY THE STEEL PSUs

(Rs. in crores)

Sl. No.	PSU/Company	2011-12	2012-13	2013-14	2014-15* (Apr-Dec)	2014-15 (Jan-Mar) (Estimated)
1	SAIL	8072.72	8599.06	8187.82	5211.90	NA
2	RINL	1635.73	1775.24	1643.11	892.02	511.18
3	NMDC	5669.62	6588.00	8952.00	4129.00	2886.00
4	MOIL	223.86	236.74	291.75	145.87	55.00
5	MSTC	97.50	83.22	81.41	42.86	15.00
6	FSNL	27.61	36.69	40.83	28.81	13.05
8	MECON	110.23	151.08	92.96	55.16	20.00
9	KIOCL	155.72	209.95	261.05	103.03	NA
10	HSCL	0.39	0.32	44.87	33.65	11.00
11	BGC	6.71	2.58	10.28	7.60	2.10
	<b>Total</b>	<b>16000.09</b>	<b>17682.88</b>	<b>19606.08</b>	<b>10649.90</b>	<b>3513.33</b>

\*Provisional



ANNEXURE - XIVA

## CONTRIBUTION MADE TO THE STATE GOVERNMENTS BY THE STEEL PSUs

(Rs. in crores)

Sl. No.	PSU/Company	2011-12	2012-13	2013-14	2014-15* (Apr-Dec)	2014-15 (Jan-Mar) (Estimated)
1	SAIL	2935.00	3524.25	3772.54	2242.13	NA
2	RINL	593.16	598.85	606.62	452.01	162.91
3	NMDC	1234.83	901.00	932.00	853.00	209.00
4	MOIL	70.53	77.27	83.24	53.85	21.00
5	MSTC	30.70	28.28	45.86	46.04	15.00
6	FSNL	0.36	0.35	0.73	0.62	0.01
7	MECON	6.05	3.04	0.94	0.13	0.05
8	KIOCL	31.22	29.66	30.44	6.11	Nil
9	HSCL	1.93	2.21	26.67	20.00	7.00
10	BGC	6.25	4.38	4.38	1.72	0.50
	<b>Total</b>	<b>4910.03</b>	<b>5169.29</b>	<b>5503.42</b>	<b>3675.61</b>	<b>415.47</b>

\*Provisional

## ANNEXURE-XV

**BUDGET AND EXPENDITURE ON CSR BY STEEL PSUS**

(Rs. in lakhs)

PSU	2011-12		2012-13		2013-14		2014-15*	
	Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp (Apr-Dec)
SAIL	6400.00	6125.00	4200.00	5329.00	4000.00	4487.00	7800.00	1287.00
RINL	1200.00	1062.22	750.00	1600.00	750.00	2031.00	1423.00	1129.00
NMDC	8013.00	8671.00	14530.00	10110.00	17105.00	13142.00	25018.00	7652.00
MOIL	628.00	655.91	680.00	1056.00	863.00	1036.34	1519.00	330.00
KIOCL	230.00	119.00	283.00	79.00	93.00	227.00	110.00	8.84
MSTC	150.00	166.00	355.00	193.28	260.00	483.00	120.00	120.00
FSNL	9.00	9.06	9.00	9.00	4.00	4.50	25.27	3.50
MECON	325.00	220.51	497.49	235.33	460.46	272.33	468.76	183.63
HSCL	0.00	7.51	0.00	24.02#	0.00	0.00	0.00	9.00
BGC	38.00	26.00	17.00	48.00	64.00	92.27	36.35	24.10
<b>Total</b>	<b>16993.00</b>	<b>17062.21</b>	<b>21321.49</b>	<b>18683.63</b>	<b>23825.46</b>	<b>21775.44</b>	<b>36520.38</b>	<b>10747.07</b>

\* Provisional

# Spent from the carried over fund of last year.





ANNEXURE - XVI

## **ADOPTION OF 'SEVEN STEP MODEL FOR CITIZEN CENTRIC-SEVOTTAM', AS PER RECOMMENDATION OF THE 2nd ADMINISTRATIVE REFORMS COMMISSION**

The Second Administrative Reforms Commission in its 12th Report "Citizens Centric Administration - the Heart of Governance" in paragraph 4.6.2 recommended for making organization transparent, accountable and citizens friendly through making citizens charter more effective and mandatory. The Department of Administrative Reforms and Public Grievances (AR & PG) has developed a model for benchmarking Excellence in Public Service Delivery (Sevottam). The model provides the framework to organizations to assess and improve the quality of service delivery for the citizens. It involves the identification of the services delivered to the citizens, quality of service, its objective, improvement of quality, by using innovative methods for developing business process more informative with the help of information technology.

The Ministry of Steel has brought out its 'Citizen Charter' and this is periodically updated in tune with the changing requirements and expectations from the stakeholders. The Charter is placed on the Ministry website [www.steel.nic.in](http://www.steel.nic.in). The Public Sector Undertakings and Companies under the Ministry are in various stages of implementation of the respective Charters and the Seven Step Model. Brief progress in respect of various companies is described below:

### **Steel Authority of India Limited (SAIL)**

Citizen Charter (Excellence in Public Service Delivery) has been prepared and its version 1.2 has been uploaded on the SAIL website. It broadly contains information under three parts. The first part describes Scope of the Charter and General Information about the Company. Second part contains Information on Objectives of the Charter, Management Commitment and Expectations from the Citizens. The third part describes Citizen Service Delivery Process, Monitoring and Review of the Charter for making improvements in the Charter.

### **MOIL Ltd.**

- (i) The Citizen Charter has been formulated in MOIL as SEVOTTAM. MOIL have taken steps for the implementation of the Charter. The same has been uploaded in Company's website and circulated amongst HODs and Mines of the Company. The Company have also displayed the copy of the Citizen Charter at prominent places in the organization, where the citizens have been visiting.
- (ii) The Company have organized training programme/workshop in Company's Training Centre for interaction, creating awareness and proper implementation of the Citizen Charter.

### **KIOCL Ltd.**

The development of Sevottam Compliant Citizen's Charter has been put in place in Company's website : <http://kioclltd.co.in>. Company has provided a linkage in its website to the portal of Central Public Grievance Redressal Mechanism of the Department of Administrative Reforms and Public Grievances for lodging and Redressal of grievances

### **Bird Group of Companies (BGC)**

The Bird Group of Company have already initiated the system for on-line receipt of grievances and settlement as per the Sevottam model. Seven Step Model of "Sevottam" has been provided in BGC website i.e. [www.birdgroup.gov.in](http://www.birdgroup.gov.in). for on line addressing of public grievances.





Government of India

**R F D**

(Results-Framework Document)  
for

Ministry of Steel

(2013-2014)

## Section 1: Vision, Mission, Objectives and Functions

### Vision

To transform India into a global leader in the steel sector, both as a steel producer as well as a steel consuming nation and to enhance the industry's international competitiveness.

### Mission

Promoting policies, initiatives and incentives for attaining a national steel production capacity of 142.3 million tonnes by the end of Twelfth Five Year Plan. Streamlining the regulatory environment for enabling optimal steel production; particularly regarding mineral policy and the mine allocation regime, tariff and taxation measures, land allocation and environmental & forest clearances. Promoting the development of infrastructure required for enhancing national steel production through coordinated efforts, particularly in sectors like Railways, Roads, Ports, Power and Water supply. Enhancing domestic demand for steel through promotional efforts and by enlarging the retail network of steel companies. Improving the techno-economic efficiency of operations of steel Ministry's PSUs.

### Objectives

- 1 To facilitate creation of steel making capacity and growth in steel production.
- 2 Monitoring performance of commitments made in the MOUs by PSUs.
- 3 Ensuring adequate availability of raw materials for steel industry from domestic and overseas sources, particularly iron ore and coal by PSUs under the Ministry of Steel.
- 4 Improving the performance of Iron & Steel industry through R&D intervention, Quality Control, Export Promotion and Improvements in techno-economic parameters.
- 5 To facilitate and monitor mergers, acquisitions and Joint Ventures by the steel ministry PSUs.
- 6 Finalisation of New Policy Initiatives
- 7 Creating and updating a comprehensive data base for various segments of the steel industry.
- 8 Human Resource Development in Iron & Steel sector
- 9 Proactive steps for environmental enhancement and pollution control

### Functions

- 1 Matters relating to production, distribution, imports and exports of iron and steel and ferro alloys.
- 2 Matters relating to the PSUs including their subsidiaries under the Ministry's administrative control i.e. (i) Steel Authority of India Ltd (SAIL); (ii) National Mineral Development Corporation Limited (NMDC); (iii) Rashtriya Ispat Nigam Ltd (RINL); (iv) Manganese (Ore) India Ltd (MOIL); (v) Metal Scrap Trade Corporation Ltd (MSTC); (vi) Ferro Scrap Nigam Ltd (FSNL); (vii) Hindustan Steelworks Construction Ltd (HSCL); (viii) Metallurgical and Engineering Consultants Ltd. (MECON); (ix) Kudremukh Iron Ore Company Ltd. (KIOCL); and (x) Bird Group of Companies, and also the company/undertaking set up





## Section 1: Vision, Mission, Objectives and Functions

for foreign acquisition of coal assets i.e. the International Coal Ventures Limited (ICVL).

- 3 Planning, development and facilitation for setting up of iron and steel production facilities including Electric Arc Furnace (EAF) units, Induction Furnace (IF) units, processing facilities like re-rollers, flat products (hot/cold rolling units), coating units, wire drawing units and steel scrap processing including ship breaking.
- 4 Development of iron ore mines in the public sector and other ore mines (manganese ore, chrome ore, limestone, sillimanite, kyanite and other minerals used in the iron and steel industry but excluding mining lease or matters related thereto).

## Section 2: Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
[1] To facilitate creation of steel making capacity and growth in steel production.	8.00	[1.1] Facilitation, coordination and necessary policy formulation to achieve steel production capacity	[1.1.1] Production Capacity of Steel during 2013-14	Million tonnes	3.00	108	105	100	98	97
			[1.1.2] Crude Steel Production during 2013-14	Million tonnes	2.50	82	81	80	79	78
		[1.2] SAIL-Projects to be pursued for grant of Forest Clearance	[1.2.1] Gua Mines : First Stage Forest Clearance for entire area as proposed by SAIL	Date	0.50	15/02/2014	28/02/2014	10/03/2014	20/03/2014	31/03/2014
			[1.2.2] Rowghat Mines: To take up with Government of Chhatisgarh for Forest Clearance to establish Camps of armed forces to facilitate construction of railway line from Dalli-Rajhara to Rowghat for Rowghat mine development project.	Date	0.50	15/02/2014	28/02/2014	10/03/2014	20/03/2014	31/03/2014
		[1.3] NMDC: Project to be pursued for grant of Mining Lease/Prospecting Licence/Environmental Clearance	[1.3.1] Grant of Mining Lease over an area 693 ha of Shahpur East Coal Block, Shahdol & Umaria District, M.P.	Date	0.50	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014

## Section 2: Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
[2] Monitoring performance of commitments made in the MOUs by PSUs.	10.00		[1.3.2] Grant of Prospecting Licence over an area of 115.46 ha in village Sasangda North East Block in District West Singhbhum, Jharkhand.	Date	0.50	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014
			[1.3.3] Obtaining Environmental Clearance for construction of Screening Plant - III at Kirandul complex, Dantewada District, Chhatisgarh.	Date	0.50	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014
		[2.1] SAIL: a) Complying with commitments made in the MoU.	[2.1.1] Fulfilment of commitment / assistance points	Number	2.00	5	4	3	2	1
		[2.2] Monitoring performance of SAIL.	[2.2.1] Review meetings on MoU performance	Number	2.00	4	3	2	1	--
		[2.3] RINL : a) Complying with the commitments made in MoU.	[2.3.1] Fulfilment of commitment / assistance points	Number	2.00	4	3	2	1	--
		[2.4] Monitoring performance of RINL	[2.4.1] Review meetings on MoU performance	Number	2.00	4	3	2	1	--
		[2.5] NMDC: a) Complying with commitments	[2.5.1] Fulfilment of commitment /	Number	1.00	2	1	--	--	--

## Section 2: Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
[3] Ensuring adequate availability of raw materials for steel industry from domestic and overseas sources, particularly iron ore and coal by PSUs under the Ministry of Steel.		made in the MoU	assistance points							
		[2.6] NMDC: b) Monitoring performance of NMDC.	[2.6.1] Review meetings on MoU performance	Number	1.00	4	3	2	1	--
	26.00	[3.1] SAIL :- i) Development of Tasra Coal block	[3.1.1] Appointment of Mine Developer cum Operator (MDO)	Date	5.00	31/08/2013	30/09/2013	31/10/2013	30/11/2013	31/12/2013
		[3.2] ii) Improving quality and availability of raw material	[3.2.1] Finalisation of tender for beneficiation and pelletisation plant at Gua	Date	2.00	30/11/2013	31/12/2013	31/01/2014	28/02/2014	31/03/2014
		[3.3] RINL: i) Taking up with the Ministry of Mines for allocation of Iron Ore Mines to RINL	[3.3.1] Allotment of atleast one mine	Date	5.00	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014
		[3.4] NMDC : i) Development of Kumaraswamy iron ore mine	[3.4.1] Erection & Commissioning of Primary Crushing Plant.	Date	1.00	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014
			[3.4.2] Erection and commissioning of secondary crushing plant.	Date	1.00	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014
		[3.5] (ii) Development of Deposit 11 B iron ore mine.	[3.5.1] Integration of Bailadila 11B iron ore mine with Screening Plant of Deposit14	Date	5.00	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014



## Section 2: Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
[4] Improving the performance of Iron & Steel industry through R&D intervention, Quality Control, Export Promotion and Improvements in techno-economic parameters.	17.00	[3.6] iii) 4th screening line at Deposit No. 10 & 11 A, Bacheli Complex.	[3.6.1] Completion of engineering, major supplies and start of equipment erection	Date	1.00	31/01/2014	15/02/2014	01/03/2014	15/03/2014	31/03/2014
		[3.7] iv) Linkage of iron ore to domestic iron and steel industry by NMDC.	[3.7.1] Iron ore supplied to domestic iron and steel companies during 2013-14	Million tonnes	4.00	24	23	22.50	22	21.50
		[3.8] Improving the quality of steel making raw material.	[3.8.1] Study to identify present status, gaps and action plan	Date	2.00	15/03/2014	20/03/2014	25/03/2014	28/03/2014	31/03/2014
		[4.1] Approval, Review and Monitoring of the R&D projects.	[4.1.1] Approval of new R&D Projects for financial assistance during the year.	Number	2.00	5	4	3	2	1
			[4.1.2] Meeting of the Project Review Committee (PRC) to monitor the progress of the 3 R&D projects (ongoing) with the Plan Fund: i) Beneficiation of Iron ore slimes from Barsua and other mines in India by RDCIS SAIL, Ranchi ii) Development of	Number	1.00	6	5	4	3	2

## Section 2: Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
			pilot scale pelletisation technology for Indian Goethitic/hematite ore with varying degree of fines by RDCIS, SAIL, Ranchi. iii) Development of futuristic Technology for carbon free iron production using alternate reductants hydrogen with minimum or no CO2 emission, smelting reduction of iron ore / fines by hydrogen plasma and elimination of CO2 emission by Institute of Minerals and Minerals Technology (IMMT), Bhubneshwar							
			[4.1.3] Meeting of the Empowered Board (EB) to monitor the progress of 3 R&D projects (ongoing) with	Number	1.00	6	5	4	3	2

## Section 2: Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
			Steel Development Fund: i) Development of Copper (Cu) - Carbon Nanomaterial (CN) Based Nanocomposite Formulation for Heat Recovery in different Processes in a steel plant by IIT, Guwahati. ii) Development of continuous Multi Gas Monitor: by MECON Ltd., Ranchi. iii) Infrared Camera Based Ladle Condition Monitoring System: by MECON Ltd., Ranchi.							
			[4.1.4] Outside Evaluation Study for Assessment of R&D projects taken in 11th Plan under the Plan Fund.	Date	2.00	31/08/2013	30/09/2013	31/10/2013	30/11/2013	31/12/2013
			[4.2.1] Amendment / Revision of Standard Input-	Number	0.50	4	3	2	1	0
		[4.2] Standard Input-Output Norms under Duty Exemption Scheme for								

## Section 2: Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
		Export Promotion.  [4.3] Improvement in techno-economic parameters of SAIL to reach global benchmarks	output Norms for iron & steel product.							
			[4.3.1] Coal Dust Injection (CDI)	Kg/thm	0.50	56.5	56	55.5	54.9	54.4
			[4.3.2] Production of crude Steel through Concast route	MT	0.50	9.96	9.86	9.77	9.67	9.53
			[4.3.3] Blast Furnace Coke rate	Kg/thm	0.50	486.4	491.5	496.6	501.7	506.8
			[4.3.4] Blast Furnace Productivity	THM/M3/day	0.50	1.65	1.64	1.62	1.61	1.59
			[4.3.5] Specific Energy Consumption	GCal/Tcs	0.50	6.34	6.41	6.47	6.54	6.61
			[4.3.6] R&D Expenditure	% PAT	0.50	1.20	1.00	0.95	0.90	0.85
			[4.3.7] Labour Productivity	Tcs/man/year	0.50	270	268	265	263	260
			[4.3.8] Agglomerate %	%	0.50	65	67.6	66.9	66.3	65.6
			[4.3.9] Blast Furnace Slag rate	Kg/thm	0.50	371	375	379	383	387
			[4.3.10] SMS (BOF) Slag rate	Kg/tcs	0.50	139	140	141	142	144
			[4.3.11] CO 2 Emission	t/tcs	0.50	2.60	2.64	2.66	2.69	2.72
			[4.4.1] BF Productivity of BF-3 in Qtr 4	t/cum/day	0.50	2.20	2.09	1.99	1.89	1.79
		[4.4] Improvement in Techno-economic parameters of								





## Section 2: Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
		RINL to reach global benchmarks								
			[4.4.2] PCI in BF-3 in Qtr 4	kg./thm	0.50	50	48	46	43	41
			[4.4.3] Converter Productivity (SMS 1)	tcs/cum/ day	0.50	24	23	22	21	20
			[4.4.4] Labour Productivity	tcs/man/ year	0.50	340	330	314	298	283
			[4.4.5] Specific Energy Consumption	G/cal/tcs	0.50	6.21	6.52	6.86	7.22	7.60
			[4.4.6] Water Consumption	Cum/tcs	0.50	2.80	2.94	3.09	3.26	3.43
			[4.4.7] R&D Expenditure	% PAT	0.50	1.05	1.00	0.95	0.90	0.86
			[4.4.8] % of Agglomerate (Sinter in the charge)	%	0.50	75	70	65	60	55
			[4.4.9] BF Slag rate	Kg/thm	0.50	378	385	390	395	400
			[4.4.10] CO 2 Emission	t/tcs	0.50	2.66	2.71	2.80	2.85	2.90
[5] To facilitate and monitor mergers, acquisitions and Joint Ventures by the steel ministry PSUs.	6.00	[5.1] RINL:- Carrying out Route Survey for Slurry Pipeline from Nagarnar to Vishakhapatnam in joint venture with NMDC	[5.1.1] Commencement of Route Survey	Date	3.00	30/11/2013	31/12/2013	31/01/2014	28/02/2014	31/03/2014
		[5.2] Development of technology for high grade / special steel.	[5.2.1] Signing of MoU / JV	Date	3.00	10/03/2014	15/03/2014	20/03/2014	25/03/2014	31/03/2014

## Section 2: Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
[6] Finalisation of New Policy Initiatives	2.00	[6.1] Finalisation of New National Steel Policy	[6.1.1] Submission of Cabinet Note on National Steel Policy	Date	1.00	30/09/2013	31/12/2013	31/01/2014	28/02/2014	31/03/2014
		[6.2] Finalise strategy for achieving the goal to turn country into net exporter of steel	[6.2.1] Revival of Steel Exporters' Forum	Date	1.00	31/12/2013	31/01/2014	15/02/2014	15/03/2014	31/03/2014
		[7.1] Comprehensive survey of the Indian Sponge Iron Industry by Joint Plant Committee (JPC).	[7.1.1] Submission of Draft Report to Ministry of Steel	Date	2.00	30/11/2013	31/12/2013	31/01/2014	28/02/2014	31/03/2014
[8] Human Resource Development in Iron & Steel sector	6.00	[8.1] SAIL: Training of employees	[8.1.1] Employees trained as % of total employees	%	2.00	30	28	26	24	22
		[8.2] RINL: Skill development	[8.2.1] Fulfilment of training plan for multi skilling / skill up-gradation of non-executives	%	2.00	100	95	90	85	80
		[8.3] Technical: Implementing the Scheme of the Ministry of Steel Chair Professor and Scholarships to students for Human Resource Development for the Steel Industry	[8.3.1] Number of students being offered Scholarship from Ministry of Steel for studying Metallurgical Engineering.	Number	2.00	50	40	30	20	10
[9] Proactive steps for environmental enhancement and pollution control	8.00	[9.1] RINL: i) Introduction of green technology to generate power from waste energy.	[9.1.1] Commissioning of Top Pressure Recovery Turbine in Blast Furnace (BF-3)	Date	2.00	28/02/2014	15/03/2014	20/03/2014	25/03/2014	31/03/2014

## Section 2:

### Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
		[9.2] ii) Efforts towards Bio-diversity	[9.2.1] Number of trees Planted during the year.	Number	1.00	10500	10000	9500	9000	8500
		[9.3] iii) Implementation of Sinter plant waste recovery project at RINL.	[9.3.1] Date of implementation	Date	1.00	30/11/2013	31/12/2013	31/01/2014	28/02/2014	31/03/2014
		[9.4] Technical: Monitoring of pollution from steel plant.	[9.4.1] i) Particulate Matter (PM) Emission from Chimneys (SAIL)	Kg/tcs	1.00	0.1	0.5	0.8	0.9	1.00
			[9.4.2] ii) Particulate Matter (PM) Emission from Chimneys (RINL)	Kg/tcs	1.00	0.1	0.5	0.8	0.9	1.0
			[9.4.3] iii) Specific Effluent Discharge (SAIL)	M3/TSS	1.00	0	1.50	2.00	2.25	2.40
			[9.4.4] iv) Specific Effluent Discharge (RINL)	M3/TSS	1.00	0	1.50	2.00	2.25	2.40
* Efficient Functioning of the RFD System	3.00	Timely submission of Draft RFD 2014-15 for Approval	On-time submission	Date	2.0	05/03/2014	06/03/2014	07/03/2014	08/03/2014	11/03/2014
		Timely submission of Results for 2012-13	On-time submission	Date	1.0	01/05/2013	02/05/2013	03/05/2013	06/05/2013	07/05/2013
* Transparency/Service delivery Ministry/Department	3.00	Independent Audit of implementation of Citizens' Charter (CCC)	% of implementation	%	2.0	100	95	90	85	80
		Independent Audit of implementation of Public Grievance Redressal System	% of implementation	%	1.0	100	95	90	85	80

\* Mandatory Objective(s)

## Section 2: Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%
* Administrative Reforms	6.00	Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	1.0	100	95	90	85	80
		Implement ISO 9001 as per the approved action plan	% of implementation	%	2.0	100	95	90	85	80
		Implement Innovation Action Plan (IAP)	% of milestones achieved	%	2.0	100	95	90	85	80
		Identification of core and non-core activities of the Ministry/Department as per 2nd ARC recommendations	Timely submission	Date	1.0	27/01/2014	28/01/2014	29/01/2014	30/01/2014	31/01/2014
* Improving Internal Efficiency/Responsiveness.	2.00	Update departmental strategy to align with 12th Plan priorities	Timely updation of the strategy	Date	2.0	10/09/2013	17/09/2013	24/09/2013	01/10/2013	08/10/2013
* Ensuring compliance to the Financial Accountability Framework	1.00	Timely submission of ATNs on Audit paras of C&AG	Percentage of ATNs submitted within due date (4 months) from date of presentation of Report to Parliament by CAG during the year.	%	0.25	100	90	80	70	60
		Timely submission of ATRs to the PAC Sectt. on PAC Reports.	Percentage of ATRs submitted within due date (6 months) from date of presentation of Report to Parliament by PAC during the year.	%	0.25	100	90	80	70	60
		Early disposal of pending ATNs on Audit Paras of C&AG Reports presented to Parliament before 31.3.2012.	Percentage of outstanding ATNs disposed off during the year.	%	0.25	100	90	80	70	60
		Early disposal of pending ATRs on PAC Reports presented to Parliament	Percentage of outstanding ATRs disposed off during the year.	%	0.25	100	90	80	70	60

\* Mandatory Objective(s)



## Section 2: Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
		before 31.3.2012	year.			100%	90%	80%	70%	60%

\* Mandatory Objective(s)



### Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
[1] To facilitate creation of steel making capacity and growth in steel production.	[1.1] Facilitation, coordination and necessary policy formulation to achieve steel production capacity	[1.1.1] Production Capacity of Steel during 2013-14	Million tonnes	89	96.71	105	112	120
		[1.1.2] Crude Steel Production during 2013-14	Million tonnes	73.80	78.20	81	91	96
	[1.2] SAIL: Projects to be pursued for grant of Forest Clearance	[1.2.1] Gua Mines : First Stage Forest Clearance for entire area as proposed by SAIL	Date	--	--	28/02/2014	--	--
		[1.2.2] Rowghat Mines: To take up with Government of Chhatisgarh for Forest Clearance to establish Camps of armed forces to facilitate construction of railway line from Dalli-Rajhara to Rowghat for Rowghat mine development project.	Date	--	--	28/02/2014	--	--
	[1.3] NMDC: Project to be pursued for grant of Mining Lease/Prospecting Licence/Environmental Clearance	[1.3.1] Grant of Mining Lease over an area 693 ha of Shahpur East Coal Block, Shahdol & Umaria District, M.P.	Date	--	--	15/02/2014	--	--

### Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
[2] Monitoring performance of commitments made in the MOUs by PSUs.		[1.3.2] Grant of Prospecting Licence over an area of 115.46 ha in village Sasangda North East Block in District West Singhbhum, Jharkhand.	Date	--	--	15/02/2014	--	--
		[1.3.3] Obtaining Environmental Clearance for construction of Screening Plant - III at Kirandul complex, Dantewada District, Chhatisgarh.	Date	--	--	15/02/2014	--	--
	[2.1] SAIL: a) Complying with commitments made in the MoU.	[2.1.1] Fulfilment of commitment / assistance points	Number	--	--	3	--	--
	[2.2] Monitoring performance of SAIL.	[2.2.1] Review meetings on MoU performance	Number	--	--	3	--	--
	[2.3] RINL : a) Complying with the commitments made in MoU.	[2.3.1] Fulfilment of commitment / assistance points	Number	--	--	3	--	--
	[2.4] Monitoring performance of RINL	[2.4.1] Review meetings on MoU performance	Number	--	--	3	--	--
	[2.5] NMDC: a) Complying with commitments made in the MoU	[2.5.1] Fulfilment of commitment / assistance points	Number	--	--	1	--	--

### Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
[3] Ensuring adequate availability of raw materials for steel industry from domestic and overseas sources, particularly iron ore and coal by PSUs under the Ministry of Steel.	[2.6] NMDC: b) Monitoring performance of NMDC.	[2.6.1] Review meetings on MoU performance	Number	--	--	3	--	--
	[3.1] SAIL :- i) Development of Tasra Coal block	[3.1.1] Appointment of Mine Developer cum Operator (MDO)	Date	--	--	30/09/2013	--	--
	[3.2] ii) Improving quality and availability of raw material	[3.2.1] Finalisation of tender for beneficiation and pelletisation plant at Gua	Date	--	--	31/12/2013	--	--
	[3.3] RINL: i) Taking up with the Ministry of Mines for allocation of Iron Ore Mines to RINL	[3.3.1] Allotment of atleast one mine	Date	--	--	15/02/2014	--	--
	[3.4] NMDC : i) Development of Kumaraswamy iron ore mine	[3.4.1] Erection & Commissioning of Primary Crushing Plant.	Date	--	--	15/02/2014	--	--
		[3.4.2] Erection and commissioning of secondary crushing plant.	Date	--	--	15/02/2014	--	--
	[3.5] (ii) Development of Deposit 11 B iron ore mine.	[3.5.1] Integration of Balladila 11B iron ore mine with Screening Plant of Deposit14	Date	--	--	15/02/2014	--	--



### Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
	[3.6] iii) 4th screening line at Deposit No. 10 & 11 A, Bacheli Complex.	[3.6.1] Completion of engineering, major supplies and start of equipment erection	Date	--	--	15/02/2014	--	--
	[3.7] iv) Linkage of iron ore to domestic iron and steel industry by NMDC.	[3.7.1] Iron ore supplied to domestic iron and steel companies during 2013-14	Million tonnes	26.92	24.67	23	--	--
	[3.8] Improving the quality of steel making raw material.	[3.8.1] Study to identify present status, gaps and action plan	Date	--	--	20/03/2014	--	--
	[4.1] Approval, Review and Monitoring of the R&D projects.	[4.1.1] Approval of new R&D Projects for financial assistance during the year.	Number	--	--	4	--	--
[4] Improving the performance of Iron & Steel industry through R&D intervention, Quality Control, Export Promotion and Improvements in techno-economic parameters.		[4.1.2] Meeting of the Project Review Committee (PRC) to monitor the progress of the 3 R&D projects (ongoing) with the Plan Fund: i) Beneficiation of iron ore slimes from Barsua and other mines in India by RDCIS SAIL, Ranchi ii) Development of pilot scale pelletisation	Number	--	14	5	--	--

### Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
		technology for Indian Goethitic/hematite ore with varying degree of fineness by RDCIS, SAIL, Ranchi. iii) Development of futuristic Technology for carbon free iron production using alternate reductants hydrogen with minimum or no CO2 emission, smelting reduction of iron ore / fines by hydrogen plasma and elimination of CO2 emission by Institute of Minerals and Minerals Technology (IMMT), Bhubneshwar						
		[4.1.3] Meeting of the Empowered Board (EB) to monitor the progress of 3 R&D projects (ongoing) with Steel Development Fund: i) Development of Copper (Cu) - Carbon	Number	--	10	5	--	--

### Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
		Nanomaterial (CN) Based Nanocomposite Formulation for Heat Recovery in different Processes in a steel plant by IIT, Guwahati. ii) Development of continuous Multi Gas Monitor: by MECON Ltd., Ranchi. iii) Infrared Camera Based Ladle Condition Monitoring System: by MECON Ltd., Ranchi.						
		[4.1.4] Outside Evaluation Study for Assessment of R&D projects taken in 11th Plan under the Plan Fund.	Date	--	--	30/09/2013	--	--
	[4.2] Standard Input-Output Norms under Duty Exemption Scheme for Export Promotion.	[4.2.1] Amendment / Revision of Standard Input-output Norms for iron & steel product.	Number	--	--	3	--	--
	[4.3] Improvement in techno-economic parameters of SAIL to reach global benchmarks	[4.3.1] Coal Dust Injection (CDI)	Kg/thm	--	54	56	--	--

### Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
		[4.3.2] Production of crude Steel through Concast route	MT	--	9.5	9.86	--	--
		[4.3.3] Blast Furnace Coke rate	Kg/thm	--	512	491.5	--	--
		[4.3.4] Blast Furnace Productivity	THM/M3/day	--	1.58	1.64	--	--
		[4.3.5] Specific Energy Consumption	GCal/Tcs	--	6.68	6.41	--	--
		[4.3.6] R&D Expenditure	% PAT	--	5.99	1.00	--	--
		[4.3.7] Labour Productivity	Tcs/man/year	--	255	268	--	--
		[4.3.8] Agglomerate %	%	--	--	67.6	--	--
		[4.3.9] Blast Furnace Slag rate	Kg/thm	--	--	375	--	--
		[4.3.10] SMS (BOF) Slag rate	Kg/tcs	--	--	140	--	--
		[4.3.11] CO 2 Emission	t/tcs	--	--	2.64	--	--
		[4.4.1] BF Productivity of BF-3 in Qtr 4	t/cum/day	--	--	2.09	--	--
	[4.4] Improvement in Techno-economic parameters of RINL to reach global benchmarks	[4.4.2] PCI in BF-3 in Qtr 4	kg.thm	--	--	48	--	--
		[4.4.3] Converter Productivity (SMS 1)	tcs/cum/day	--	--	23	--	--

### Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
		[4.4.4] Labour Productivity	tcs/man/y ear	--	362	330	--	--
		[4.4.5] Specific Energy Consumption	G/cal/tcs	--	6.31	6.52	--	--
		[4.4.6] Water Consumption	Cum/tcs	--	2.37	2.94	--	--
		[4.4.7] R&D Expenditure	% PAT	--	8.9	1.00	--	--
		[4.4.8] % of Agglomerate (Sinter in the charge)	%	--	--	70	--	--
		[4.4.9] BF Slag rate	Kg/thm	--	--	385	--	--
		[4.4.10] CO 2 Emission	t/tcs	--	--	2.71	--	--
		[5.1.1] Commencement of Route Survey	Date	--	--	31/12/2013	--	--
[5] To facilitate and monitor mergers, acquisitions and Joint Ventures by the steel ministry PSUs.	[5.1] RINL:- Carrying out Route Survey for Slurry Pipeline from Nagamar to Vishakhapatnam in joint venture with NMDC							
	[5.2] Development of technology for high grade / special steel.							
	[6.1] Finalisation of New National Steel Policy							
	[6.2] Finalise strategy for achieving the goal to turn country into net exporter of steel							
[6] Finalisation of New Policy Initiatives		[5.2.1] Signing of MoU / JV	Date	--	--	15/03/2014	--	--
		[6.1.1] Submission of Cabinet Note on National Steel Policy	Date	--	--	15/02/2014	--	--
		[6.2.1] Revival of Steel Exporters' Forum	Date	--	--	31/01/2014	--	--



### Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
[7] Creating and updating a comprehensive data base for various segments of the steel industry.	[7.1] Comprehensive survey of the Indian Sponge Iron Industry by Joint Plant Committee (JPC).	[7.1.1] Submission of Draft Report to Ministry of Steel	Date	--	--	31/12/2013	--	--
	[8.1] SAIL: Training of employees	[8.1.1] Employees trained as % of total employees	%	--	--	28	--	--
	[8.2] RINL: Skill development	[8.2.1] Fulfilment of training plan for multi skilling / skill up-gradation of non-executives	%	--	--	95	--	--
	[8.3] Technical: Implementing the Scheme of the Ministry of Steel Chair Professor and Scholarships to students for Human Resource Development for the Steel Industry	[8.3.1] Number of students being offered Scholarship from Ministry of Steel for studying Metallurgical Engineering.	Number	--	--	40	--	--
[9] Proactive steps for environmental enhancement and pollution control	[9.1] RINL: i) Introduction of green technology to generate power from waste energy.	[9.1.1] Commissioning of Top Pressure Recovery Turbine in Blast Furnace (BF-3)	Date	--	--	15/03/2014	--	--
	[9.2] ii) Efforts towards Bio-diversity	[9.2.1] Number of trees Planted during the year.	Number	--	--	10000	--	--
	[9.3] iii) Implementation of Sinter plant waste recovery project at	[9.3.1] Date of implementation	Date	--	--	31/12/2013	--	--

### Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
* Efficient Functioning of the RFD System	RINL. [9.4] Technical: Monitoring of pollution from steel plant.	[9.4.1] i) Particulate Matter (PM) Emission from Chimneys (SAIL)	Kg/tcs	--	--	0.5	--	--
		[9.4.2] ii) Particulate Matter (PM) Emission from Chimneys (RINL)	Kg/tcs	--	--	0.5	--	--
		[9.4.3] iii) Specific Effluent Discharge (SAIL)	M3/TSS	--	--	1.50	--	--
		[9.4.4] iv) Specific Effluent Discharge (RINL)	M3/TSS	--	--	1.50	--	--
		On-time submission	Date	--	--	06/03/2014	--	--
* Transparency/Service delivery Ministry/Department	Timely submission of Results for 2012-13	On-time submission	Date	--	--	02/05/2013	--	--
	Independent Audit of implementation of Citizens' Charter	% of implementation	%	--	--	95	--	--
	Independent Audit of implementation of Public Grievance Redressal System	% of implementation	%	--	--	95	--	--
* Administrative Reforms	Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	--	--	95	--	--
	Implement ISO 9001 as per the approved action plan	% of implementation	%	--	--	95	--	--

\* Mandatory Objective(s)

### Section 3: Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
* Ensuring compliance to the Financial Accountability Framework	Implement Innovation Action Plan (IAP)	% of milestones achieved	%	--	--	95	--	--
	Identification of core and non-core activities of the Ministry/Department as per 2nd ARC recommendations	Timely submission	Date	--	--	15/10/2013	--	--
	Timely submission of ATNs on Audit paras of C&AG	Percentage of ATNs submitted within due date (4 months) from date of presentation of Report to Parliament by CAG .during the year.	%	--	--	90	--	--
	Timely submission of ATRs to the PAC Sectt. on PAC Reports.	Percentage of ATRs submitted within due date ( 6 months) from date of presentation of Report to Parliament by PAC .during the year.	%	--	--	90	--	--
	Early disposal of pending ATNs on Audit Paras of C&AG Reports presented to Parliament before 31.3.2012.	Percentage of outstanding ATNs disposed off during the year.	%	--	--	90	--	--
	Early disposal of pending ATRs on PAC Reports presented to Parliament before 31.3.2012	Percentage of outstanding ATRs disposed off during the year.	%	--	--	90	--	--

\* Mandatory Objective(s)

## Section 4: Acronym



Sl.No	Acronym	Description
1	ASU	Air Separation Unit
2	BF	Blast Furnace
3	CDI	Coal Dust Injection
4	COB	Coke Oven Battery
5	EB	Empowered Board
6	EC	Environmental Clearance

Section 4:  
Acronym

Sl.No	Acronym	Description
7	FC	Forest Clearance
8	FSNL	Ferro Scrap Nigam Limited
9	ICVL	International Coal Ventures Limited
10	IF	Induction Furnace
11	IMG	Inter-Ministrial Meeting
12	JPC	Joint Plant Committee



## Section 4: Acronym

Sl.No	Acronym	Description
13	KIOCL	Kudremukh Iron Ore Company Limited
14	MDO	Mine Developer cum Operator
15	MOIL	Maganese Ore India Limited
16	MSTC	Metal Scrap Trading Corporation
17	MTPA	Million tonnes Per Annum
18	NH	National Highway



Section 4:  
Acronym

Sl.No	Acronym	Description
19	NMDC	National Mineral Development Corporation
20	PCI	Pulverised Coal Injection
21	PRC	Project Review Committee
22	PSU	Public Sector Undertaking
23	RINL	Rashtriya Ispat Nigam Limited
24	SAIL	Steel Authority of India Limited

## Section 4: Description and Definition of Success Indicators and Proposed Measurement Methodology

Sl.No	Success indicator	Description	Definition	Measurement	General Comments
1	[1.1.1] Production Capacity of Steel during 2013-14	Growth in steel Production capacity	Creation of steel Production capacity	Measured in terms of quantity in million tonnes	
2	[1.1.2] Crude Steel Production during 2013-14	Achieve higher growth level	Growth in steel production	Measured in terms of quantity in million tonnes.	
3	[3.3.1] Finalisation of tender for beneficiation and pelletisation plant at Gua	To improve quality and availability of raw material for beneficiation and pelletisation plant at Gua.	Completion of work relating to tendering for beneficiation and pelletisation plant at Gua.	Measured in terms of timeliness	
4	[3.8.1] Iron ore supplied to domestic iron and steel companies during 2013-14	To cater the demand of iron ore to steel industry in the country	Supply of iron ore to domestic steel industry	Measured in terms of quantity of iron ore in million tonnes.	
5	[6.1.1] Submission of Cabinet Note on National Steel Policy	In order to formulate new National Steel Policy, Cabinet Note is required to be submitted to the Cabinet.	Formulation of New National Steel Policy	Measured in terms of timeliness	



Section 4:  
Description and Definition of Success Indicators and Proposed Measurement Methodology

Sl.No	Success indicator	Description	Definition	Measurement	General Comments
6	[7.1.1] Submission of Draft Report to Ministry of Steel	Submission of Draft Survey Report on Comprehensive Survey of the Indian Sponge Industry by the Joint Plant Committee (JPC) for the updation of information and database of the Indian Sponge Iron industry.	Comprehensive Survey of the Indian Sponge Industry by the Joint Plant Committee (JPC).	Measured in terms of timeliness	

## Section 5 : Specific Performance Requirements from other Departments

Location Type	State	Organisation Type	Organisation Name	Relevant Success Indicator	What is your requirement from this organisation	Justification for this requirement	Please quantify your requirement from this Organisation	What happens if your requirement is not met.
Central Government		Ministry	Ministry of Railways	[3.8.1] Iron ore supplied to domestic iron and steel companies during 2013-14	Supply of rakes from Railways as per indents placed by NMDC for transportation of iron ore. ii) Doubling of road and making them pucca (two lane) for evacuation of iron ore from Kumaraswamy Mine, Donamalai, Karnataka. ii) Laying of two additional roads for evacuation of iron ore from Kumaraswamy Mine, Karnataka.	Supply of rakes by the Railways is essential for transportation of iron ore as per the supply schedule of NMDC ii) Doubling of road is essential for smooth transport of material from the mine. iii) Additional roads are required considering the present as well as future requirement of supply of iron ore from Kumaraswamy mine.	i) 16 rakes per day in the Bailadila Sector. ii) 6 rakes per day in the Kumaraswamy and Donamalai Sector. iii) Doubling of existing road and making them pucca. iv) Laying two additional roads	i) the targets of supply of iron ore may not be met.





## Section 6: Outcome/Impact of Department/Ministry

Outcome/Impact of Department/Ministry	Jointly responsible for influencing this outcome / impact with the following department (s) / ministry(ies)	Success Indicator	Unit	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16
1 Increase in Steel production	Ministries/ Departments of Railways, Surface Transport, Ports/Shipping, Power, Mines, Coal, Environment & Forest, State Governments concerned.	Steel Production	Million tonnes	72	78	82	91	96
2 Increase in Steel making capacity	Ministries/Department of Railways, Surface Transport, Ports/Shipping, Power, Mines, Coal, Environment & Forest, State Governments concerned.	Production capacity	Million Tonnes	84.8	92	108	113	118
3 Reduction in import of Steel	Ministries/Departments of Railways, Surface Transport, Ports/Shipping, Power, Mines, Coal, Environment & Forest, State Governments concerned.	Import of finished steel	Million tonnes	6.8	6.0	5.5	5.5	5.0
4 Increase in export of finished steel	Ministries/Departments of Railways, Surface Transport, Ports/Shipping, Power, Mines, Coal, Environment & Forest, State Governments.	Export of finished steel	Million tonnes	3.64	4.04	4.00	5.00	6.00
5 Increase in consumption of finished steel	Ministries/Departments of Railways, Surface Transport, Ports/Shipping, Power, Mines, Coal, Environments & Forest, State Governments concerned.	Real consumption of finished steel	Million tonnes	70.00	77.30	85.05	93.60	100

## Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value						Performance	
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%	Achiev- ement	Raw Score	Weighted Score
1 To facilitate creation of steel making capacity and growth in steel production.	8.00	Facilitation, coordination and necessary policy formulation to achieve steel production capacity	Production Capacity of Steel during 2013-14	Million tonnes	3.00	108	105	100	98	97	99.6	78.0	2.34
			Crude Steel Production during 2013-14	Million tonnes	2.50	82	81	80	79	78	81.37	93.7	2.34
		SAIL: Projects to be pursued for grant of Forest Clearance	Gua Mines : First Stage Forest Clearance for entire area as proposed by SAIL	Date	0.50	15/02/2014	28/02/2014	10/03/2014	20/03/2014	31/03/2014	17/01/2014	100.0	0.5
			Rowghat Mines: To take up with Government of Chhatisgarh for Forest Clearance to establish Camps of armed forces to facilitate construction of railway line from Dalli-Rajhara to Rowghat for Rowghat mine development project.	Date	0.50	15/02/2014	28/02/2014	10/03/2014	20/03/2014	31/03/2014	02/02/2014	100.0	0.5
		NMDC: Project to be pursued for grant of Mining Lease/Prospecting Licence/Environmental Clearance	Grant of Mining Lease over an area 693 ha of Shahpur East Coal Block, Shahdol & Umaria District, M.P.	Date	0.50	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014		N/A	N/A
			Grant of Prospecting Licence over an area of 115.46 ha in village Sasangda North East Block in District West Singhbhum, Jharkhand.	Date	0.50	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014	04/07/2013	100.0	0.5
			Obtaining Environmental Clearance for construction of Screening Plant - III at Kirandul complex.	Date	0.50	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014	05/11/2013	100.0	0.5



## Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achievement	Performance	
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weighted Score
						100%	90%	80%	70%	60%			
2 Monitoring performance of commitments made in the MOUs by PSUs.	10.00	SAIL: a) Complying with commitments made in the MoU. b) Monitoring performance of SAIL. RINL : a) Complying with the commitments made in MoU. b) Monitoring performance of RINL NMDC: a) Complying with commitments made in the MoU NMDC: b) Monitoring performance of NMDC.	Dantewada District, Chhatissgarh.										
			Fulfillment of commitment / assistance points	Number	2.00	5	4	3	2	1	5	100.0	2.0
			Review meetings on MoU performance	Number	2.00	4	3	2	1		4	100.0	2.0
			Fulfillment of commitment / assistance points	Number	2.00	4	3	2	1		4	100.0	2.0
			Review meetings on MoU performance	Number	2.00	4	3	2	1		4	100.0	2.0
			Fulfillment of commitment / assistance points	Number	1.00	2	1				2	100.0	1.0
3 Ensuring adequate availability of raw materials for steel industry from domestic and overseas sources, particularly iron ore and coal by PSUs under the Ministry of Steel.	26.00	SAIL :- i) Development of Tasra Coal block  ii) Improving quality and availability of raw material  RINL: ) Taking up with the Ministry of Mines for allocation of Iron Ore Mines to RINL	Review meetings on MoU performance	Number	1.00	4	3	2	1		4	100.0	1.0
			Appointment of Mine Developer cum Operator (MDO)	Date	5.00	31/08/2013	30/09/2013	31/10/2013	30/11/2013	31/12/2013	26/07/2013	100.0	5.0
			Finalisation of tender for beneficiation and pelletisation plant at Gua	Date	2.00	30/11/2013	31/12/2013	31/01/2014	28/02/2014	31/03/2014	14/02/2014	75.0	1.5
			Allotment of atleast one mine	Date	5.00	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014	30/09/2013	100.0	5.0

## Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value						Performance	
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%	Achievement	Raw Score	Weighted Score
4 Improving the performance of Iron & Steel industry through R&D intervention, Quality Control, Export Promotion and Improvements in techno-economic parameters.	17.00	NMDC : i) Development of K.Lumaraswamy iron ore mine	Erection & Commissioning of Primary Crushing Plant.	Date	1.00	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014	12/12/2013	100.0	1.0
			Erection and commissioning of secondary crushing plant.	Date	1.00	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014	16/12/2013	100.0	1.0
		(ii) Development of Deposit 11 B iron ore mine.	Integration of Bailadila 11B iron ore mine with Screening Plant of Deposit 114	Date	5.00	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014	31/01/2014	100.0	5.0
		iii) 4th screening line at Deposit No. 10 & 11 A, Bachel Complex.	Completion of engineering, major supplies and start of equipment erection	Date	1.00	31/01/2014	15/02/2014	01/03/2014	15/03/2014	31/03/2014	31/01/2014	100.0	1.0
		iv) Linkage of iron ore to domestic iron and steel industry by NMDC.	Iron ore supplied to domestic iron and steel companies during 2013-14	Million tonnes	4.00	24	23	22.50	22	21.50	28.21	100.0	4.0
		Improving the quality of steel making raw material.	Study to identify present status, gaps and action plan	Date	2.00	15/03/2014	20/03/2014	25/03/2014	28/03/2014	31/03/2014	11/03/2014	100.0	2.0
4 Improving the performance of Iron & Steel industry through R&D intervention, Quality Control, Export Promotion and Improvements in techno-economic parameters.	17.00	Approval, Review and Monitoring of the R&D projects.	Approval of new R&D Projects for financial assistance during the year.	Number	2.00	5	4	3	2	1	9	100.0	2.0
			Meeting of the Project Review Committee (PRC) to monitor the progress of the 3 R&D projects (ongoing) with the Plan Fund: i)	Number	1.00	6	5	4	3	2	14	100.0	1.0



## Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achievement	Performance	
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weighted Score
						100%	90%	80%	70%	60%			
			Benefitiation of Iron ore slimes from Barsua and other mines in India by RDCIS SAIL, Ranchi ii) Development of pilot scale pelletisation technology for Indian Goethite/hematite ore with varying degree of fineness by RDCIS, SAIL, Ranchi. iii) Development of futuristic Technology for carbon free iron production using alternate reductants hydrogen with minimum or no CO <sub>2</sub> emission, smelting reduction of iron ore / fines by hydrogen plasma and elimination of CO <sub>2</sub> emission by Institute of Minerals and Minerals Technology (IMMT), Bhubneshwar										
			Meeting of the Empowered Board (EB) to monitor the progress of 3 R&D projects (ongoing) with Steel Development Fund: i) Development of Copper (Cu) - Carbon Nanomaterial (CN) Based Nanocomposite Formulation for Heat Recovery in different	Number	1.00	6	5	4	3	2	6	100.0	1.0



## Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value						Achievement	Performance	
						Excellent	Very Good	Good	Fair	Poor	Raw Score		Weighted Score	
						100%	90%	80%	70%	60%				
			Processes in a steel plant by IIT, Guwahati. ii) Development of continuous Multi Gas Monitor: by MECON Ltd., Ranchi. iii) Infrared Camera Based Ladle Condition Monitoring System: by MECON Ltd., Ranchi.											
			Outside Evaluation Study for Assessment of R&D projects taken in 11th Plan under the Plan Fund.	Date	2.00	31/08/2013	30/09/2013	31/10/2013	30/11/2013	31/12/2013		31/08/2013	100.0	2.0
		Standard Input-Output Norms under Duty Exemption Scheme for Export Promotion.  Improvement in techno-economic parameters of SAIL to reach global benchmarks	Amendment / Revision of Standard Input-output Norms for iron & steel product.	Number	0.50	4	3	2	1	0		4	100.0	0.5
			Coal Dust Injection (CDI)	Kg/tn	0.50	56.5	56	55.5	54.9	54.4		53	0.0	0.0
			Production of crude Steel through Concast route	MT	0.50	9.96	9.86	9.77	9.67	9.53		8.8	0.0	0.0
		Blast Furnace Coke rate	Kg/tn	0.50	486.4	491.5	496.6	501.7	506.8		513	0.0	0.0	
		Blast Furnace Productivity	THM/M3/day	0.50	1.65	1.64	1.62	1.61	1.59		1.58	0.0	0.0	
		Specific Energy Consumption	GCal/Tcs	0.50	6.34	6.41	6.47	6.54	6.61		6.59	62.86	0.31	
		R&D Expenditure	% PAT	0.50	1.20	1.00	0.95	0.90	0.85		5.19	100.0	0.5	
		Labour Productivity	Tcs/mar/year	0.50	270	268	265	263	260		278	100.0	0.5	

## Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achievement	Performance	
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weighted Score
						100%	90%	80%	70%	60%			
To facilitate and monitor mergers, acquisitions	6.00	Improvement in Techno-economic parameters of RINL to reach global benchmarks	Agglomerate %	%	0.50	65	67.6	66.9	66.3	65.6	64	100.0	0.5
			Blast Furnace Slag rate	Kg/thm	0.50	371	375	379	383	387	398	0.0	0.0
			SMS (BOF) Slag rate	Kg/tcs	0.50	139	140	141	142	144	147	0.0	0.0
			CO 2 Emission	t/tcs	0.50	2.60	2.64	2.66	2.69	2.72	2.69	70.0	0.35
			BF Productivity of BF-3 in Qtr 4	t/cum/day	0.50	2.20	2.09	1.99	1.89	1.79	1.82	63.0	0.32
			PCI in BF-3 in Qtr 4	kg.thm	0.50	50	48	46	43	41		N/A	N/A
			Converter Productivity (SMS 1)	tcs/cum/day	0.50	24	23	22	21	20	24.89	100.0	0.5
			Labour Productivity	tcs/man/year	0.50	340	330	314	298	283	371	100.0	0.5
			Specific Energy Consumption	G/cal/tcs	0.50	6.21	6.52	6.86	7.22	7.60	6.19	100.0	0.5
			Water Consumption	Cu m/tcs	0.50	2.80	2.94	3.09	3.26	3.43	2.32	100.0	0.5
			R&D Expenditure	% PAT	0.50	1.05	1.00	0.95	0.90	0.86	1.05	100.0	0.5
			% of Agglomerate (Sinter in the charge)	%	0.50	75	70	65	60	55	72.1	94.2	0.47
			BF Slag rate	Kg/thm	0.50	378	385	390	395	400	365	100.0	0.5
			CO 2 Emission	t/tcs	0.50	2.66	2.71	2.80	2.85	2.90	2.66	100.0	0.5
5 To facilitate and monitor mergers, acquisitions	6.00	RINL:- Carrying out Route Survey for Slurry	Commencement of Route Survey	Date	3.00	30/11/2013	31/12/2013	31/01/2014	28/02/2014	31/03/2014	30/09/2013	100.0	3.0



## Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value						Performance	
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%	Achievement	Raw Score	Weighted Score
and Joint Ventures by the steel ministry PSUs.		Pipeline from Nagarnar to Vishakhapatnam in joint venture with NMDC											
		Development of technology for high grade / special steel.	Signing of MoU / JV	Date	3.00	10/03/2014	15/03/2014	20/03/2014	25/03/2014	31/03/2014		N/A	N/A
6 Finalisation of New Policy Initiatives	2.00	Finalisation of New National Steel Policy	Submission of Cabinet Note on National Steel Policy	Date	1.00	30/09/2013	31/12/2013	31/01/2014	28/02/2014	31/03/2014		N/A	N/A
		Finalise strategy for achieving the goal to turn country into net exporter of steel	Revival of Steel Exporters' Forum	Date	1.00	31/12/2013	31/01/2014	15/02/2014	15/03/2014	31/03/2014	30/09/2013	100.0	1.0
7 Creating and updating a comprehensive data base for various segments of the steel industry.	2.00	Comprehensive survey of the Indian Sponge Iron Industry by Joint Plant Committee (JPC).	Submission of Draft Report to Ministry of Steel	Date	2.00	30/11/2013	31/12/2013	31/01/2014	28/02/2014	31/03/2014	18/11/2013	100.0	2.0
8 Human Resource Development in Iron & Steel sector	6.00	SAIL: Training of employees	Employees trained as % of total employees	%	2.00	30	28	26	24	22	46.3	100.0	2.0
		RINL: Skill development	Fulfillment of training plan for multi skilling / skill up-gradation of non-executives	%	2.00	100	95	90	85	80	100	100.0	2.0
		Technical: Implementing the Scheme of the Ministry of Steel Chair Professor and Scholarships to students for Human Resource Development for the Steel Industry	Number of students being offered Scholarship from Ministry of Steel for studying Metallurgical Engineering.	Number	2.00	50	40	30	20	10		N/A	N/A
9 Proactive steps for environmental enhancement and pollution control	8.00	RINL: i) Introduction of green technology to generate power from waste energy.	Commissioning of Top Pressure Recovery Turbine in Blast Furnace (BF-3)	Date	2.00	28/02/2014	15/03/2014	20/03/2014	25/03/2014	31/03/2014	15/03/2014	90.0	1.8

## Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value						Achievement	Performance	
						Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%	Raw Score		Weigh- ted Score	
		ii) Efforts towards Bio-diversity iii) Implementation of Sinter plant waste recovery project at RINL. Technical: Monitoring of pollution from steel plant.	Number of trees Planted during the year.	Number	1.00	10500	10000	9500	9000	8500	10500	100.0	1.0	
			Date of implementation	Date	1.00	30/11/2013	31/12/2013	31/01/2014	28/02/2014	31/03/2014	30/11/2013	100.0	1.0	
			i) Particulate Matter (PM) Emission from Chimneys (SAIL)	Kg/tcs	1.00	0.1	0.5	0.8	0.9	1.00	0.86	74.0	0.74	
			ii) Particulate Matter (PM) Emission from Chimneys (RINL)	Kg/tcs	1.00	0.1	0.5	0.8	0.9	1.0	0.58	87.33	0.87	
			iii) Specific Effluent Discharge (SAIL)	M3/TSS	1.00	0	1.50	2.00	2.25	2.40	2.16	73.6	0.74	
			iv) Specific Effluent Discharge (RINL)	M3/TSS	1.00	0	1.50	2.00	2.25	2.40	0.69	95.4	0.95	
			On-time submission	Date	2.0	05/03/2014	06/03/2014	07/03/2014	08/03/2014	11/03/2014	05/03/2014	100.0	2.0	
			On-time submission	Date	1.0	01/05/2013	02/05/2013	03/05/2013	06/05/2013	07/05/2013		N/A	N/A	
			% of implementation	%	2.0	100	95	90	85	80		N/A	N/A	
			% of implementation	%	1.0	100	95	90	85	80		N/A	N/A	
* Administrative Reforms	6.00	Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	1.0	100	95	90	85	80	100	100.0	1.0	



## Performance Evaluation Report

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achievement	Performance	
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weighted Score
						100%	90%	80%	70%	60%		Score	Score
		Implement ISO 9001 as per the approved action plan	% of implementation	%	2.0	100	95	90	85	80	100	100.0	2.0
		Implement Innovation Action Plan (IAP)	% of milestones achieved	%	2.0	100	95	90	85	80		N/A	N/A
		Identification of core and non-core activities of the Ministry/Department as per 2nd ARC recommendations	Timely submission	Date	1.0	27/01/2014	28/01/2014	29/01/2014	30/01/2014	31/01/2014	27/01/2014	100.0	1.0
* Improving Internal Efficiency/Responsiveness.	2.00	Update departmental strategy to align with 12th Plan priorities	Timely updation of the strategy	Date	2.0	10/09/2013	17/09/2013	24/09/2013	01/10/2013	08/10/2013	10/09/2013	0.0	0.0
* Ensuring compliance to the Financial Accountability Framework	1.00	Timely submission of ATNs on Audit paras of C&AG	Percentage of ATNs submitted within due date (4 months) from date of presentation of Report to Parliament by CAG .during the year.	%	0.25	100	90	80	70	60	100	100.0	0.25
		Timely submission of ATRs to the PAC Sectl. on PAC Reports.	Percentage of ATRs submitted within due date (6 months) from date of presentation of Report to Parliament by PAC .during the year.	%	0.25	100	90	80	70	60	100	100.0	0.25
		Early disposal of pending ATNs on Audit Paras of C&AG Reports presented to Parliament before 31.3.2012.	Percentage of outstanding ATNs disposed off during the year.	%	0.25	100	90	80	70	60	100	100.0	0.25
		Early disposal of pending ATRs on PAC Reports presented to Parliament before 31.3.2012	Percentage of outstanding ATRs disposed off during the year.	%	0.25	100	90	80	70	60	100	100.0	0.25

\* Mandatory Objective(s)

Total Composite Score : 79.24 (Prov.)









**Ministry of Steel**  
Government of India  
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