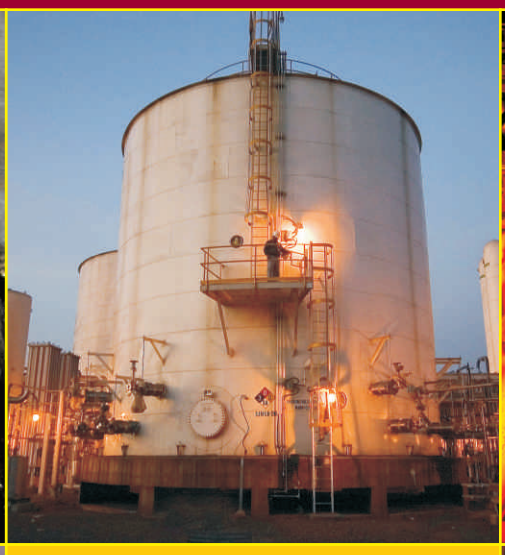
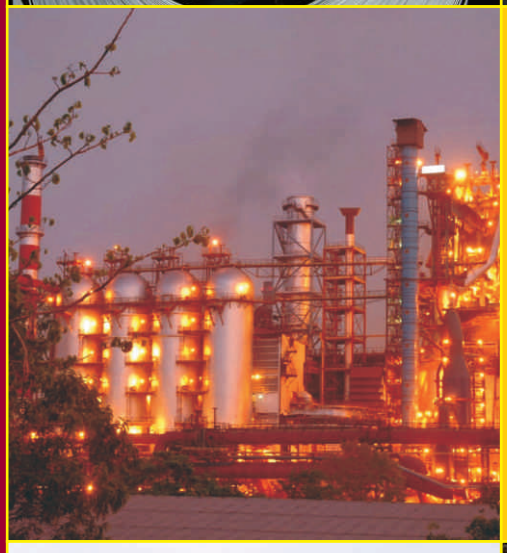





Annual Report 2009-2010




MINISTRY OF STEEL
GOVERNMENT OF INDIA



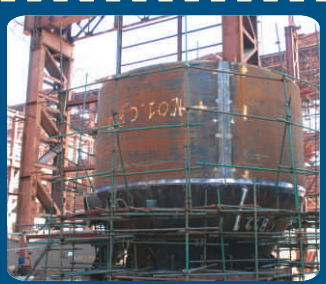
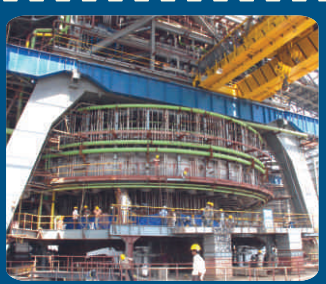





Modernisation & Expansion in progress at SAIL & RINL






Pictures depict Modernisation & Expansion activities of IISCO Steel Plant of SAIL (row-1), Salem Steel Plant of SAIL (row-2) and Visakhapatnam Steel Plant of RINL (row 3 & 4).

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2009-2010

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MINISTRY OF STEEL

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The production, financial and other related figures for 2009-10 (April-December 2009) are provisional.

Hon'ble Prime Minister of India, Dr. Manmohan Singh presenting the Prime Minister's Trophy for the best Integrated Steel Plant in India for SAIL's Bhilai Steel Plant (BSP) to the Chairman, Steel Authority of India Limited (SAIL), Shri S.K. Roongta and Managing Director, BSP, Shri R. Ramaraju for the years 2006-07 & 2007-08, in New Delhi on February 15, 2010, in the presence of Hon'ble Union Minister of Steel, Shri Virbhadra Singh and the Hon'ble Minister of State for Steel, Shri A. Sai Prathap.



CHAPTER-I

HIGHLIGHTS

STEEL SECTOR TRENDS

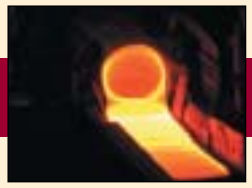
- India is currently the 5th largest producer of crude steel in the world and is expected to become the 2nd largest producer of crude steel in the world by 2015-16.
- India also maintained its lead position as the world's largest producer of direct reduced iron (DRI) or sponge iron with around 21 million tonne production in 2008-09.
- 222 MoUs have been signed with various States for planned capacity of around 276 million tonne.
- Major investment plans are in the States of Orissa, Jharkhand, Chattisgarh, West Bengal, Karnataka, Gujarat and Maharashtra. The details of the break-up of the MoUs signed by the State Governments of Orissa, Chattisgarh, Jharkhand and Other States are given in the table below:

State	No. of MoUs signed	Capacity (in million tonne per annum)
Orissa	49	75.66
Jharkhand	65	104.23
Chattisgarh	74	56.61
West Bengal	12	21.00
Other States	22	18.20
Total	**222**	*** 275.70**

******approximate*

Highlights of 2009-10

- During April-December 2009-10 (provisional), the following is the industry scenario as compared to same period of 2008-09:
  - Crude steel production was at 45.775 million tonne, a growth of 4 per cent. The Main Producers produced 17.35 million tonne during this period, which was a growth of 5.5 per cent compared to last year. The Major Producers produced 9.835 million tonne during this period, which was a growth of 27.9 per cent compared to last year. The rest i.e. 18.59 million tonne was the contribution of the Other Producers, which was a decline of 6.4 per cent compared to last year.
  - Pig iron production for sale in April - December 2009-10 was 4.248 million tonne, a 13 per cent decline over same period of last year. The Main Producers accounted for only 14 per cent of the same, the rest (86%) being the share of the Major and Other Producers.
  - In case of total finished steel (alloy + non-alloy) during April - December 2009 :
    - Production for sale was at 43.849 million tonne (mt), a growth of 3.2 per cent
    - Steel exports decreased by 36 per cent as it reached an estimated 2.099 million tonne while steel imports were at an estimated 5.21 million tonne, a growth of 16.6 per cent.
    - India remained a net importer of steel.
    - Domestic steel consumption was at 40.997 million tonne and increased by 7.8 per cent, indicating further strengthening of demand.
- The total financial requirements covered in Demand No. 91 of the Ministry of Steel for Budget Estimate (BE) 2009-10, Revised Estimate (RE) and Actuals for 2009-10 and BE (2010-11) are summarised in the following table:



(Rs. in crore)

Demand No. 91	BE 2009-10			RE 2009-10			Actual 2008-09			BE 2010-11		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
Revenue Section	26.00	89.01	115.01	13.00	811.19	824.19	0.00	480.78	480.78	35.00	78.92	113.92
Capital Section	8.00	0.00	8.00	3.01	0.00	3.01	0.00	260.04	260.04	1.00	0.00	1.00
Total (Gross)	**34.00**	**89.01**	**123.01**	**16.01**	**811.19**	**827.20**	**0.00**	**740.82**	**740.82**	**36.00**	**78.92**	**114.92**

Major initiatives taken by the Ministry of Steel during the year

Inter Ministerial Group (IMG)

An Inter Ministerial Group (IMG) to monitor and coordinate various issues concerning major steel investments in the country has been constituted under the Chairmanship of Secretary (Steel) for conducting coordination meetings with the steel investors, concerned Central Ministries/Departments and the State Governments. A meeting of IMG was held on 25.8.2009. It was attended by all major PSUs and private steel investors and Ministries/Departments such as Railways, Shipping, Road Transport & Highways, Environment & Forest and Mines.

Hon'ble Prime Minister of India, Dr. Manmohan Singh being presented a dividend cheque of Rs. 460.81 crore by Chairman, SAIL, Shri S.K. Roongta in the presence of Hon'ble Union Minister of Steel, Shri Virbhadra Singh. The then Secretary (Steel) Shri P.K. Rastogi is also seen in the picture (extreme right).

Survey to measure domestic steel consumption

- As the present per capita consumption in the country is only around 47 kg (2008) against the world average of 190 kg and that of 400 kg in developed countries, a study has been commissioned through the Joint Plant Commission (JPC) during the 2008, to estimate the per capita demand for iron and steel in the rural sector of India and to determine the factors those can contribute to its enhancement.



Export of iron ore

- Ministry of Steel is of the view that Policy regarding iron ore export should aim at attracting investment in steel making capacity so that the value additions and export of finished products are promoted instead of exporting raw materials.
- In the Group of Ministers (GoM) meeting to consider National Mineral Policy, 2007, there was an agreement that iron ore resources of the country should be conserved for the use of domestic steel industry. It was decided that although conservation of iron ore resources of the country is of paramount importance, the same may not be achieved by banning or capping the export of iron ore but by taking recourse to appropriate fiscal measures. This was approved by the Government.
- Due to consistent efforts of Ministry of Steel, export duty has been imposed on iron ore. Initially in 2007, an export duty of Rs.50/- per tonne was imposed on iron ore fines upto 62% Fe content and Rs.300/-per tonne on all other varieties of iron ore. Subsequently, export duty was revised to 15% ad-valorem on all varieties of iron ore and thereafter to Nil export duty on iron ore fines and 5% ad-valorem export duty on iron ore lumps. The present rates of duty on iron ore exports w.e.f. 24.12.2009 are following:

  i) Iron ore fines (all sorts) - 5% ad-valorem

  ii) Iron ore other than fines(including lumps & pellets) - 10% ad-valorem

Performance of PSUs and Companies under the Ministry

- Profit after Tax (PAT) of the companies with this Ministry was around Rs. 7,772 crore during the year 2009-10 (upto December 2009).
- The contribution of the companies with this Ministry, to Central and State Government exchequer by way of excise duty, customs duty, dividend, corporate tax, sales tax, royalty etc. was around Rs. 11,298 crore during the year 2009-10 (upto December 2009).
- The net worth of major PSUs under the Ministry of Steel took quantum leaps, indicating their robust financial health as summarised in the following table:

(Rs. in crore)

PSU	Net worth as on 31.03.2004	Net worth as on 31.12.2009
SAIL	4659.00	32046
RINL	4852.00	12884
NMDC	1967.00	14052
MOIL	139.77	1491.37
MSTC	83.00	377.69
KIOCL	1389.16	1892.5
MECON	(-) 257.91	117.82

Major initiatives in the PSUs

Mega Expansion Plans of SAIL, RINL & NMDC Ltd.

The Steel PSUs are in the midst of the capacity expansion plans. The major thrust of the modernization and expansion plans is to adopt the best modern technology, which in addition to being cost effective should also be energy efficient and environment friendly.

- The progress of the expansion of SAIL, RINL and NMDC is monitored on a regular basis in the Ministry. As a consequence of monitoring, a number of systemic improvements have been put in place in project implementation.
- The expansion and modernization programme of the Steel Authority of India Ltd. (SAIL) is underway at all its steel plants to enhance the hot metal production capacity. Recently after onset of global recession and in view of the pressure on steel prices and possibility of diminished margins a review of overall expansion and modernization plans carried out in SAIL. The proposed production built-up, as envisaged originally to go upto 26.18 million tonnes per annum, is now to be achieved in two phases. In phase-I the capacity would be ramped upto 23.46 million tonnes and to be increased to 26.18 million tonnes in phase-II. The current phase of expansion and modernization is targeted to be completed by the financial year 2012-13. Out of the total investment on Modernization and Expansion, a provision of Rs. 10,356 crore has been made in the financial year 2009-10 and this investment target is expected to be fulfilled by the end of the financial year.



Hon'ble Union Minister of Steel, Shri Virbhadra Singh being presented a dividend cheque by Chairman & Managing Director, NMDC Ltd., Shri Rana Som, in the presence of (From left to right) Executive Director & Company Secretary, NMDC, Shri Kumar Raghavan, Director (Finance) NMDC, Shri S. Thiagarajan, Steel Secretary, Shri Atul Chaturvedi and Special Secretary & Financial Advisor, Ministry of Steel, Shri B.S. Meena.

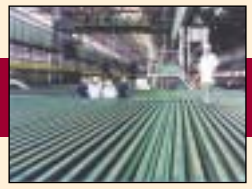
- In respect of RINL, expansion plan for increasing liquid steel capacity from 3.0 million tonne to 6.3 million tonne at an estimated cost of around Rs.12,228 crore by 2011 is progressing as per schedule. Stage-I of the project would be completed by October, 2010 and Stage-II by September, 2011. Supply orders for all major packages have already been placed.
- The progress of activities in respect of Integrated Steel Plant (ISP) of NMDC is also well underway. The environmental clearance for Integrated Steel Plant of NMDC at Nagarnar was accorded by the Ministry of Environment and Forests (MoEF) in September, 2009. Chhattisgarh Government has sanctioned drawal of water for NMDC. NMDC is in the final stage of the process of shortlisting of the technology providers and the process is expected to be completed shortly.
- SAIL has planned to set up Steel Processing Units (SPUs) at various locations in Bihar (Bettiah, Mahnar, Gaya); Uttar Pradesh (Lakhimpur); Madhya Pradesh (Gwalior, Ujjain and Hosangabad); Himachal Pradesh (Kangra) ; Assam (Guwahati) and Jammu & Kashmir (Srinagar) to meet customers' demand for supplying sized and finished steel near the point of consumption, particularly in states where there are no steel plants and where steel consumption is low compared to the national average. The SPU at Bettiah is under implementation. For SPUs envisaged at the other locations, tendering activity for various packages is in progress.

Merger/acquisitions/revival and restructuring of PSUs

Various proposals for merger of PSUs under the administrative control of Ministry of Steel are underway:

- Government has approved merger of Sponge Iron India Limited (SIIL) with NMDC. The Ministry of Corporate Affairs has also approved the merger and merger process will be completed shortly.
- Bharat Refractories Ltd. (BRL) has finally been merged with SAIL w.e.f. 01.04.2007 (appointed date) by an Order dated 28.07.2009, of the Ministry of Corporate Affairs (MCA) filed with Registrar of Companies (ROC) on 27.08.2009. BRL is now rechristened as 'SAIL Refractory Unit' (SRU).
- The Cabinet has approved a restructuring plan for Bird Group of Companies (BGC). The restructuring proposal envisages converting companies under BGC into Public Sector Undertakings and vesting their management control





to Rashtriya Ispat Nigam Limited (RINL), in a subsidiary cum holding structure in order to make these companies economically viable and sustainable. The Government loan and accrued interest thereon would be waived off. The commercially unviable companies would be wound up and their employees would be adjusted in other sister companies under the Group or would be offered Voluntary Retirement Scheme. Implementation of the decision of Cabinet is underway.

- Restructuring of Hindustan Steelworks Construction Company Ltd. (HSCL)

  HSCL, a Kolkata based company, was established in 1964. HSCL is engaged in the construction of integrated steel plants and other infrastructure development activities. The company has accumulated losses to the tune of Rs. 1379 crore due to heavy interest burden and excessive manpower in the past. However, the company has shown operational profits for the last several years. A revival/restructuring package is being evolved by the Government aiming at expediting the process of modernization of Steel Plants and infrastructure projects by HSCL. HSCL would be in a position to take up fresh infrastructure projects and earn profit after the implementation of the revival package. The Note for Cabinet Committee on Economic Affairs (CCEA) regarding restructuring has been prepared and circulated. However, there are some financial issues that have to be finally resolved with the Ministry of Finance, particularly regarding the waiver of grants and loans and the note will be taken to CCEA shortly thereafter.

Expansion of Distribution Networks

- In order to ensure the availability of commonly used items of steel in the rural areas across the country, a decision was taken to have at least one dealer in each district. For this purpose, SAIL and RINL are expanding their distribution networks at a fast pace. As on January 1, 2010, SAIL had 1963 dealers in place covering 599 districts in the country against 200 dealers in 2006; and RINL has appointed 80 dealers as against nil in 2003.

Performance of major PSUs under the Ministry of Steel during April-December, 2009

STEEL AUTHORITY OF INDIA LTD. (SAIL)

- Profit before tax of Rs. 7065.19 crore and profit after tax of Rs.4669.47 crore.
- Sales turnover of Rs. 30928.82 crore.
- The SAIL Board approved an interim dividend to the shareholders of the company at Rs. 1.60 per equity share for the financial year 2009-10.

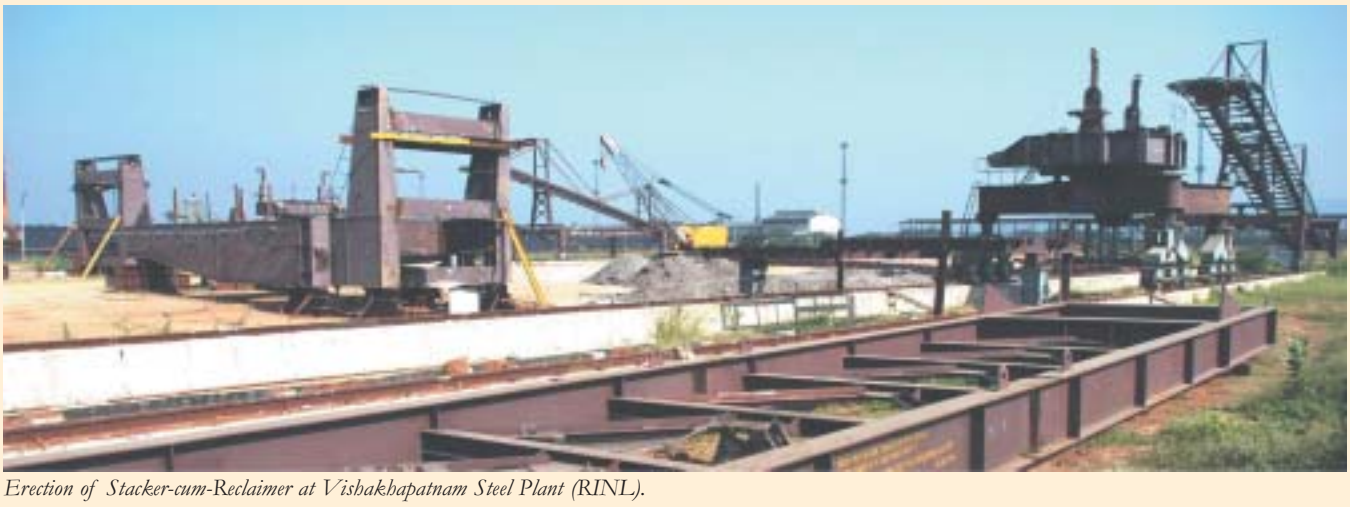
In the presence of Hon'ble Union Minister of Steel, Shri Virbhadra Singh, Hon'ble Union Minister of State for Steel, Shri A. Sai Prathap Singh and Secretary (Steel), Shri Atul Chaturvedi (right to left) MoU documents are being exchanged between Chairman, SAIL, Shri S.K. Roongta and CMD, NMDC, Shri Rana Som for setting up of a Joint Venture for development of Arki Limestone Mine at Shimla (Himachal Pradesh).



- Produced 9.366 million tonne of saleable steel by achieving 108% capacity utilisation, and produced 10.908 million tonne of hot metal and 10.175 million tonne of crude steel.
- Production of Special steel/Value added products at 3.44 million tonne was best ever achieved, with a growth of 20% over the corresponding period of the previous year.
- Lowest ever Coke rate at 516 kg per tonne of hot metal and also lowest ever specific energy consumption at 6.74 Gigacalorie per tonne of crude steel during 2009-10.

RASHTRIYA ISPAT NIGAM LTD. (RINL)

- Production in major units exceeded 100% capacity utilization for the ninth consecutive year by achieving 113%, 108% and 114% capacity utilization for hot metal, Liquid steel & Saleable steel respectively.
- Sales Turnover of Rs. 7543 crore was achieved during Apr-Dec'09, registering a growth of 7% over the corresponding period of 2008-09.
- Sales volume of Saleable Steel during Apr-Dec'09 stood at 2.274 million tonne, registering a growth of 4% over the corresponding period last year.
- Export sales value touched Rs.300 crore during April-December 2009, a growth of 283% over the corresponding period last year.



Erection of Stacker-cum-Reclaimer at Vishakhapatnam Steel Plant (RINL).

- 44% growth in sales volume of Value added Steel was achieved over the corresponding period last year, with sales of 16.55 lakh tonne during April-December 2009.
- RINL set a new landmark by achieving 15,133 tonne of structural erection in a month in Sept 2009 and 36,320 cubic metre concreting in January 2010
- 10,075 tonne of equipment erection has been achieved in a month in December 2009.
- Main Receiving Station was commissioned for supply of power to expansion units
- Water system for supply of water to expansion units was commissioned
- Commissioning of New Microbiological and Chemicals Treatment (MBC) plant
- Start of individual trial run of several systems of Blast Furnace commenced
- Fourth Coke Oven Battery was commissioned in April 2009
- RINL is the first Indian Steel Plant to get 'Capability Maturity Model Integrated' (CMMI) level-3 certificate in the field of Information Technology
- 'Enterprise Resource Planning' (ERP) -'UKKU SANKALP' implementation process was launched in RINL-VSP.
- RINL was recognised as one amongst "India's Top 50 best companies to work for" in the study conducted by Great Place To Work Institute and Economic Times. The company was ranked among the Top 2 PSUs, Ranked 4th in Large organizations and Ranked 6th in Manufacturing & production companies

NMDC LTD.

- NMDC produced 17.07 million tonne of Iron Ore during 2009-10 (upto December 2009) compared to 28.15 million tonne in the previous full year 2008-09.



- Domestic sales of Iron Ore of 14.62 million tonne, during 2009-10 (upto December 2009) as against 22.60 million tonne during the previous full year 2008-09.
- The company exported 2.61 million tonne of Iron Ore to Japan, South Korea and China valued at approximately Rs. 805 crore during current year (upto December 2009) compared to 3.87 million tonne valued at Rs. 1703 crore during the previous full year.
- Total Sales during the year was 17.23 million tonne (uptoDecember 2009) as against 26.47 million tonne during previous full year.

MANGANESE ORE (INDIA) LTD. (MOIL)

- During 2009-10 (upto December, 2009), the production of manganese ore was 793926 tonne (provisional).
- During 2009-10 (upto December, 2009), the production of Ferro Manganese was 6895 tonne (provisional).
- During 2009-10 (upto December, 2009), the production of Electrolytic Manganese Dioxide was 807 tonne (provisional).
- During 2009-10 (upto December, 2009), Sales Turnover was Rs. 647.15 crore (provisional).
- During 2009-10 (upto December, 2009), the Profit Before Tax was Rs. 424.09 crore (provisional).
- During 2009-10 (upto December, 2009), the Profit After Tax was Rs. 279.94 crore (provisional).

MSTC LTD.

- The volume of business for the period April-December 2009 stood at Rs. 7283 crore.
- In the e-Commerce front, MSTC have done a business of Rs.3,853 crore during April-December 2009.
- Profit after tax stands at Rs. 43.48 crore during April-December 2009.

HINDUSTAN STEELWORKS CONSTRUCTION LTD. (HSCL)

- Operational profit earned in 2009-10 (upto December 2009) is Rs. 31.84 crore against the target of Rs. 29.96 crore - an increase of Rs. 1.88 crore.
- Overall turnover increased by Rs. 67 crore till December 2009 over the corresponding period of 2008-09.
- The order booking during 2009-10 stood at Rs. 691 crore against MoU target of Rs. 650 crore.

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 on 31.12.2009, the net worth of MECON stands at Rs. 117.82 crore. This is a significant achievement as compared to the company's negative net worth of Rs. (-) 257.91 crore as on 31.03.04.

KIOCL LTD.

- Production of 2.37 lakh tonne of Pellets during the month of November 2009 is the highest quantity of Pellets produced in any month after switch over to use of Hematite Ore purchased from outside source since January 2006;
- Despatch of 1,97,203 dry metric tonne of Pellets during the month of December 2009 and price realization of US $ 108 per tonne are the highest during the current year;
- The Shareholders of the Company in the AGM held on 28.07.2009 have approved payment of dividend of 1% on the Paid up Share Capital of the Company amounting to Rs. 634.51 lakh for the year 2008-09 paid during the year 2009-10

BIRD GROUP OF COMPANIES (BGC)

Orissa Minerals Development Company (OMDC)

- During 2009-10 (April to December 2009), the sales turnover was Rs. 64.29 crore (provisional) as compared to Rs. 271.81 crore during 2008-09.
- During 2009-10 (April to December 2009), the profit before tax was Rs. 88.13 crore (provisional) as compared to Rs. 286.24 crore during 2008-09.
- During 2009-10 (April to December 2009), the profit after tax was Rs. 59.22 crore (provisional) as compared to Rs. 181.81 crore during 2008-09.

CHAPTER-II

THE INDIAN STEEL SECTOR : DEVELOPMENT AND POTENTIAL

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 5th 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) and its weight in the Index of Industrial Production (IIP) is 6.2 per cent. From a negligible global presence, the Indian steel industry is now globally acknowledged for its product quality. As it traversed its long history during the past 61 years, 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 equalisation policy: To ensure balanced regional industrial growth.
- Controls on imports of inputs, including technology, capital goods and mobilisation of finances and exports.

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 tonne 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 reversed in 1991-92, when the country replaced the control regime by liberalisation and deregulation in the context of globalisation. 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.

December 26, 1959: the then President Dr. Rajendra Prasad after inaugurating Blast Furnace # 1 at SAIL's Durgapur Steel Plant.



- 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%, subject to the foreign exchange and other stipulations governing such investments in general.
- Freight equalisation scheme was replaced by a system of freight ceiling.
- Quantitative import restrictions were largely removed. Export restrictions were withdrawn.

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.

November 27, 1967: Levelling work in progress at the site for SAIL's Bokaro Steel Plant.

This freedom to choose established the sovereignty of the consumer and galvanised steel producers to provide products/ service levels in tune with the needs of the consumers. 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 tonne 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.

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.



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 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 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 realised.

Production, consumption and growth of steel

The National Steel Policy 2005 had projected consumption to grow at 7% based on a GDP growth rate of 7-7.5% and production of 110 million tonne by 2019-20. These estimates will be largely exceeded and it has been assessed that, on a 'most likely scenario' basis, the crude steel production capacity in the country by the year 2011-12 will be nearly 124 million tonne.

The table below shows the trend in production for sale, import, export and consumption of total finished steel (alloy + non-alloy) in the country:

Year	Total finished steel (alloy + non-alloy) ('000 tonne)			
	Production for sale	Import	Export	Consumption
2004-05	43513	2293	4705	36377
2005-06	46566	4305	4801	41433
2006-07	52529	4927	5242	46783
2007-08	56075	7029	5077	52125
2008-09	57164	5841	4437	52351
Apr-Dec 2009-10*	43849	5210	2099	40997

*Source: JPC; * =Provisional*

Crude steel production has shown a sustained rise since 2004-05 along with capacity. Data on crude steel production, capacity and capacity utilization are given in the table below:

Year	Crude steel		
	Capacity ('000 tonne)	Production ('000 tonne)	Capacity utilisation (%)
2004-05	47995	43437	91
2005-06	51171	46460	91
2006-07	56843	50817	89
2007-08	59845	53857	91
2008-09	66343	58437	88
Apr-Dec 2009-10*	72763**	45775	84

Source: JPC;=Provisional; **6.42 million tonne capacity added during April-December 2009*

- The growth was driven by capacity expansion from 47.99 million tonne per annum (mtpa) in 2004-05 to 72.76 mtpa in 2009-10 (upto December 2009).
- Crude steel production grew at a CAGR of 8.6 per cent during the five years, 2004-05 to 2008-09.
- Production for sale of total finished steel at 57.16 million tonne during 2008-09 as against 43.51 million tonne in 2004-05 at average annual growth rate of 7%.



- With growth in production for sale lagging behind consumption growth, India has turned into a net importer of finished steel in 2007-08. Exports have also declined to ensure greater domestic availability.

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 31 per cent of total crude steel production in the country during 2008-09 and has emerged as a key driver of crude steel production.

The process route-wise production of crude steel in the country during 2004-05, 2008-09 and April-December 2009-10 (provisional) are shown in the table below and indicates the emergence of the electric route of production compared to the oxygen route:

Crude steel production by Process Route	Percentage share (%)		
	2004-05	2008-09	2009-10* (April-December)
Basic Oxygen Furnace (BOF)	52	45	47
Electric Arc Furnace (EAF)	18	24	26
Induction Furnace (IF)	30	31	27
Total	100	100	100

Source: JPC;=Provisional*

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 to overall production; its share has increased from 64% in 2004-05 to 74% in 2008-09. Capacity in sponge iron making has also increased over the years and currently stands at 32 million tonne. The table below shows the production of sponge iron in the country in the last five years and 2009-10 (April-December 2009) indicating the break-up of the share of coal and gas based route of production:

Production of sponge iron						(unit: million tonne)
Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10* (April-December)
Coal based	7.89	10.28	13.08	14.53	15.57	10.92
Gas based	4.64	4.54	5.26	5.84	5.52	4.56
Total	12.53	14.82	18.34	20.37	21.09	15.48

*Source: JPC; *=Provisional*

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 accounts for nearly 90% of total production for sale of pig iron in the country. The domestic availability situation of pig iron is given in the table below:

Pig Iron Domestic Availability Scenario						('000 tonne)
Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10* (Apr-Dec)
Production for sale	3228	4695	4953	5284	6207	4248
Import	8	3	3	11	8	10
Export	393	440	707	560	350	227
Consumption	2791	4136	4336	4621	5870	4025

*Source: JPC, * = provisional*



Global ranking of Indian steel

Global crude steel production reached 1220 million tonne in 2009, a decline of 8 per cent over 2008. China was the largest crude steel producer in the world with production reaching 567.8 million tonne, a growth of 13.5 per cent over 2008. India once again emerged as the fifth largest producer in 2009 and recorded a growth of 2.7 per cent as compared to 2008, the only other country in the top 10 bracket to register a positive growth during 2009. India also emerged as the largest sponge iron producing country in the world in 2009, a rank it has held on since 2002. If proposed expansions plans are implemented as per schedule, India may become the second largest crude steel producer in the world by 2015-16.

World crude steel production in 2009*

Rank	Country	Production (million tonne)
1	China	567.8
2	Japan	87.5
3	Russia	59.9
4	US	58.1
5	India	56.6
6	South Korea	48.6
7	Germany	32.7
8	Ukraine	29.8
9	Brazil	26.5
10	Turkey	25.3

*Source: World Steel Association; *=Provisional*

Plan outlay for 11th Five-Year Plan (2007-12)

- For the 11th Five Year Plan (2007-12), the Planning Commission has approved total outlay of Rs. 45607.08 crore (i.e. Internal and Extra Budgetary Resources [I&EBR] of Rs. 45390.08 crore and Gross Budgetary Support [GBS] of Rs. 217 crore).

(Rs. in crore)

No.	Name of the Scheme/programme	Outlay for 11th Plan (Approved)		
		I&EBR	GBS	Total
A.	**Scheme of PSUs**			
1.	Steel Authority of India Ltd.	27409.00	0.00	27409.00
2.	Rashtriya Ispat Nigam Ltd.	9569.18	0.00	9569.18
3.	Sponge Iron India Ltd.	25.00	0.00	25.00
4.	Hindustan Steelworks Construction Ltd.	0.00	35.00	35.00
5.	MECON Ltd.	9.00	63.00	72.00
6.	MSTC Ltd.	30.00	0.00	30.00
7.	Ferro Scrap Nigam Ltd.	60.00	0.00	60.00
8.	NMDC Ltd.	7147.00	0.00	7147.00
9.	KIOCL Ltd.	650.00	0.00	650.00
10.	Manganese Ore India Ltd.	342.90	0.00	342.90
11.	Bird Group of Companies	148.00	1.00	149.00
B.	**Scheme of Ministry of Steel**			
1.	Scheme for promotion of R&D in the Iron & Steel Sector	0.00	118.00	118.00
	Total (A+B)	**45390.08**	**217.00**	**45607.08**



- During the 11th Five Year Plan, a new scheme viz. "Scheme for promotion of Research and Development in Iron & Steel sector" has been approved with a budgetary provision of Rs. 118 crore for implementation. The objective of the scheme is to develop path-breaking technologies in an environment friendly manner. The scheme was approved by Ministry of Finance with the observation that the scheme may be initiated in the Financial Year 2009-10. The Working Group on Steel Industry set up by the Planning Commission for the 11th Five-Year Plan (2007-12) had projected a total demand of 70.34 million tonne for finished steel and a total production of 80.23 million tonne of crude steel by the end of the 11th Plan, that is, 2011-12. Both the 11th Plan projections and the NSP targets are likely to be considerably surpassed.

The 11th Plan would be crucial for realising the objectives pronounced in the National Steel Policy 2005 of building a modern and efficient domestic steel industry of global standards with a capacity to cater to diversified product demands. The Working Group on Steel Industry has made recommendations consistent with the targets/objectives of the National Steel Policy, 2005.

The rejuvenated steel market in the country has already witnessed the announcements of mega expansion plans of leading domestic producers in the form of Greenfield and/or Brownfield projects in different parts of the country. The decision of Posco, South Korea, to set up their 12 million tonne integrated steel plant in Orissa has given the Indian steel industry a feel of what 'globalisation' is all about. This was soon followed by Mittal Group's announcement of plans to set up their 12 million tonne integrated steel unit in Orissa.

However, the domestic Indian steel producers did not lag behind. Indian conglomerate TATA Steel's $12 billion takeover of Anglo-Dutch giant Corus Group Plc, transformed TATA Steel Ltd. into a significant global steel producer, which may well be regarded as a benchmark even in the history of the Indian steel industry. Such developments only prove that the Indian steel industry has entered a mature phase.

Steel: Key facts

Indian steel scene: April - December, 2009-10 *		
Item	**Quantity (million tonne)**	**% change**
Total Finished Steel Production for sale	43.849	3.2
Import	5.210	16.6
Export	2.099	-36.1
Consumption	40.997	7.8
Crude steel Production	45.775	4
Capacity Utilisation (%)	84	-
*Source: JPC; * = Provisional*		

Besides achieving the rank of the 5th largest global crude steel producer, 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.

In this journey of progress, the Indian steel industry has also taken significant steps in improvement of productivity, conservation of natural resources and energy, import substitution, quality upgradation; environment management and research and development. Some of the notable developments are:

- **Introduction of Stamp Charging and Partial Briqueting of Coal Charge (PBCC) for production of metallurgical coke:** In this process, it has been made possible to replace part of the metallurgical coal requirements by non-coking/ semi-coking coal, with higher strength of the coke and less emission.
- **Installation of energy recovery coke ovens to meet power requirements as well as to reduce emission:** Energy recovery type coke ovens have been set up by many steel companies like SesaGoa, JSW Steel, VISA Steel, Neelachal Ispat Nigam Ltd. (NINL) and Gujarat NRE Coke Limited.



A view of a Coke Oven Battery in a SAIL Steel Plant.

- **Use of non-coking coal in iron making:** Processes such as Corex have now been introduced in some of the steel plants to produce hot metal by predominantly using non-coking coal. The Coal Dust/ Pulverised Coal Injection System has been introduced in several blast furnaces to partially substitute coke. In addition, there has been large-scale growth of sponge iron units based on non-coking coal.
- **Use of Direct Reduced Iron (DRI)/Sponge iron in steel making:** Earlier, only scrap could be used as a feed material in electric arc furnaces. With growing scarcity of scrap, a replacement could be found in the form of DRI produced from iron ore with reformed natural gas/ non-coking coal as reductant.
- **Use of hot metal in electric arc furnaces:** Setting up of Basic Oxygen Furnaces is capital intensive and successful only at a large scale. However, with the advent of modern electric arc furnaces, steel could be produced in electric arc furnace by use of hot metal that substantially replaces steel scrap and results in huge savings in electricity consumption.
- **Adoption of continuous casting:** The first solidified form of steel in the melting shops used to be ingots. With the advent of continuous casting in the late 1970s, continuous cast blooms/ billets/ slabs resulted in significant energy savings as well as improved productivity. Adoption of thin slab casting has further resulted in additional energy savings in the hot strip mills.
- **Import substitution:** Till the early 1980s, Indian steel production was centered mostly on non-flat products. Critical flat products such as thin gauge Hot Rolled coils, Deep Drawing/ Extra Drawing grade Cold Rolled coils, thin gauge Galvanised Plain/ Galvanised Corrugated sheets and Tin Mill Black Plate used to be mostly imported. With the setting up of modern hot strip mills in the 1990s; cold rolling mills and galvanizing lines from the 1980s; and colour coating lines from the 1990s, India is now well equipped to produce various grades of flat products.
- **Value-added production:** Earlier, integrated steel plants had to earmark part of the hot metal production for production of pig iron for foundries. From the early 1990s, mini-blast furnaces were set up in the country that supplied pig iron to the foundries and enabled the integrated steel plants to concentrate on production of value-added steel items.



- **Increasing size/volume of blast furnaces:** Most of the blast furnaces of the steel plants were of small volume. In order to increase productivity, the blast furnaces in the steel plants have gradually been revamped or newly set up with bigger volumes. The biggest blast furnace in India at present is with JSW (4013 cubic metres), followed by Tata Steel Limited (TSL) (3814 cubic metres), and RINL (3200 cubic metres).
- **Reducing coke consumption in blast furnaces and improving productivity:** Indian blast furnaces used to consume as high as 850 kilograms of coke per tonne of hot metal and Blast Furnace productivity was hovering at less than one tonne per cubic meter per day. Introduction of modern technologies and practices, viz. high top pressure, high blast temperature, pulverized coal injection; attention to burden preparation and distribution; higher use of sinter in place of lumps etc. have resulted in reduced coke consumption and improved productivity. Today, coke rate in some of the blast furnaces is less than 500 kg/tonne hot metal and productivity exceeds 2 tonne per cubic metre per day.
- **Enhancing steel quality:** Earlier, the steel making furnaces used to complete the steel making within the furnaces themselves. With the introduction of modern steel making technologies/ practices and secondary refining technologies such as ladle metallurgy, vacuum degassing etc., it is now possible to produce steel of much lower inclusion and much lower content of oxygen, nitrogen and hydrogen. The ladle furnace technology has also made it possible to cut down the steel-making time in converters or Electric Arc Furnaces and to enable production of steel of low sulphur and phosphorus content.
- **Efforts to reduce energy consumption and emissions:** Iron and Steel making involves energy intensive processes. The international norm of energy consumption is 4.5 to 5.5 Giga calories per tonne of crude steel. With adoption of modern technology and equipment, beneficiation of raw materials and use of high grade imported coking coal, Indian Steel plants have been able to achieve energy consumption at the level of 6.5 to 7.0 Giga Calories only. Further, steps are being taken to achieve much lower energy consumption and corresponding lower Green House Gas (GHG) emission by the end of 11th Five Year Plan. With the growth of steel industry, increasing attention is being paid to environment management. Steps such as afforestation, installation of pollution-control equipment are likely to abate the pollution emanating from steel industry. The Indian iron and steel industry is taking advantages of

Iron ore being despatched from a mechanised mine of SAIL.



the Clean Development Mechanism under the Kyoto Protocol, thereby improving energy efficiency and reducing GHG emission.

Present growth scenario and future outlook

India was the fifth largest producer of crude steel in the world in 2009, based on rankings released by World Steel Association. Domestic crude steel production grew at a compounded annual growth rate of 8.6 per cent during 2004-05 to 2008-09. This growth was driven by both capacity expansion (from 47.99 million tonne in 2004-05 to 66.343 million tonne in 2008-09) and improved capacity utilisation. India, the world's largest producer of direct reduced iron (DRI) or sponge iron, is also expected to maintain its lead in the near future. Sponge iron production grew at a CAGR of 11 per cent to reach a level of 21.09 million tonne in 2008-09 compared to 12.54 million tonne in 2004-05. India is expected to become the second largest producer of steel in the world by 2015-16, provided all requirements for fresh capacity creation are met.

Indian steel industry has just come out of the slowdown that affected its performance during 2008-09. Domestically, 2009 ended on a relatively better and encouraging note, with CSO reporting an overall improvement of economic situation through its GDP data, which showed a robust 7.9 per cent growth during July-September 2009-10. IIP too had registered a strong 7.6 per cent growth during April-November 2009-10, further bolstering the idea that the demand side is back on stable footing. For steel, this is of key importance and the growth rates registered for leading end-use segments like manufacturing, consumer durables, construction, the stable growth of the service sector and agriculture sector spell good news. April-December 2009 provisional data released by JPC indicates a 7.8 per cent rise in consumption of total finished steel. Globally also there are signs of improvement in economic conditions and firming up of demand and prices.

Trends in production, private/public sector

Traditionally, Indian steel industry has been classified into Main Producers (SAIL plants, Tata Steel and Vizag Steel/ RINL), Major Producers (plants with crude steel making capacity above 0.5 million tonne - Essar Steel, JSW Steel, Jindal Steel & Power and Ispat Industries) and Other Producers. The latter comprises of numerous steel making plants producing crude steel/finished steel (long product/flat product)/ pig iron/ sponge iron and are spread across the different states of the country. [The details of production for sale of Main and Secondary producers may be seen in the **Annexure-III**. Other related details are reflected in the **Annexures-IV to X**.]

The following table highlights the total as also the contribution of the private and public sector in crude steel production in the country:

	Indian Crude Steel production				*(in million tonne)*
	2005-06	**2006-07**	**2007-08**	**2008-09**	**2009-10 * (April-December)**
Public Sector	16.964	17.003	17.091	16.372	12.483
Private Sector	29.496	33.814	36.766	42.065	33.292
Total Production	46.460	50.817	53.857	58.437	45.775
% share of Public Sector	36.5	33.5	32	28	27

*Source: JPC; *=Provisional*

Foreign investments and private sector participation

Domestic and foreign investors have shown a great deal of interest in setting up steel capacities in the country. Prospective investors include the existing public sector as well as private sector manufacturers, reputed foreign manufacturers, sponge iron makers going in for forward integration, as well as small rolling mills trying to get into backward integration, among others.

Role of the Ministry of Steel

The pre-de-regulation 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 skillful 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-de-regulation 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 concern 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 11th plan period.
- Providing technical inputs to the Norms Committee in Director General of Foreign Trade (DGFT), Department of Commerce, to fix/revise input-output norms to facilitate export of iron, steel, ferro-alloy, refractories and engineering products.
- Providing technical input to Ministry of Environment & Forest (MoEF) for grant of Host Country Approval under the Clean Development Mechanism (CDM) and United Nations Framework Convention on Climate Change (UNFCCC).
- Co-ordinating with Bureau of Indian Standards for formulation /amendment of Indian standards for Iron & Steel products.
- Co-ordinating with Central Pollution Control Board/MoEF for environment management and polution control and waste management.
- Facilitating improvement in performance of integrated steel plants through the Prime Minister's Trophy Scheme, giving recognition to the best performing steel plant in India.
- Addressing the problem of shortage of technically qualified manpower to sustain development and growth of the iron and steel industry in India.
- The organisation of Steel Consumer Council under the Chairmanship of the Hon'ble Steel Minister provides a forum for interaction of all producers and consumers of steel in the country.
- Facilitating Human Resources in the steel sector through training institute under its control.

The Indian Steel Industry has withstood international competition despite the reduction of basic customs duty on steel from 25-30% in 2002-03 to 5% currently. The industry now operates in an open economy where exports and imports respond to increases or decreases in the domestic demand driven primarily by market signals.

While exports of finished steel were sustained at a level of 4-5 million tonne per annum during the 10th Plan, imports sharply increased from about 1.75 million tonne in 2003-04 to 5.21 million tonne in April-December 2009 (provisional data), not because of fall in competitiveness but to fill up supply-demand gap in the domestic market.

However, industry slipped into a slowdown phase in latter half of 2008-09, prompted by a massive sub-prime crisis which originated in the USA and impacted global operations in varying degrees throughout the world. Steel industry globally, saw cutbacks in production, decline in price and profitability, slowdown in demand and delays/shelving of proposed expansion projects. However, helped to a considerable extent by the well-designed policy stimulus packages of the Government of India, the steel industry in the country has successfully overcome the adverse effects of a global economic slowdown and domestic steel consumption has registered a positive growth during the year 2008-09 and during April-December 2009, domestic consumption of total finished steel has increased by a strong 7.8 per cent rate. Also, globally prices are showing signs of firming up and 2009-10 has brought in a promising note for the Indian steel sector, with production growth estimated at least in the range of 5-7% and Central Statistical Organisation (CSO) reporting an overall improvement of economic situation through its GDP data, which showed a robust 7.9 per cent growth during July-September 2009 and 7.6 per cent growth in Index of Industrial Production (IIP) during April-November 2009.



CHAPTER-III

ORGANISATIONAL STRUCTURE AND FUNCTIONS OF THE MINISTRY OF STEEL

The Ministry of Steel is under charge of the Minister of Steel who is assisted by a Minister of State. 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. The list of subjects allocated to the Ministry may be seen in **Annexure-I.** There are 10 public sector undertakings and one directly managed government company under the administrative control of the Ministry of Steel. The list of Minister-in-charge and the officers down to the level of Deputy Secretary is given in **Annexure-II.**

Key functions of the Steel Ministry

- 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 10 PSUs, their subsidiaries and one Government managed company.

Allocation of responsibilities

The Ministry of Steel has a Secretary, three Joint Secretaries, five Directors, four Deputy Secretaries, one Joint Director and other supporting officers and staff. The Ministry also has a Financial Adviser in the rank of Special Secretary, an

The Minister for Energy and Mineral Resources of Indonesia, His Excellency Mr. Purnomo Yusgiantoro meeting the Hon'ble Union Minister of Steel, Shri Virbhadra Singh, in New Delhi on September 07, 2009.

ORGANISATION CHART OF THE MINISTRY OF STEEL AS ON 01.01.2010

LEGENDS

SS & FA	-	Spl Secretary & Financial Advisor			
JS	-	Joint Secretary	CCA	-	Chief Controller of Accounts
EA	-	Economic Advisor	IA	-	Industrial Advisor
DIR	-	Director	AD IA	-	Additional Industrial Advisor
DS	-	Deputy Secretary	JT. DIR	-	Joint Director (Official Language)
JIA	-	Joint Industrial Advisor	US	-	Under Secretary
DIA	-	Deputy Industrial Advisor	AIA	-	Assistant Industrial Advisor

MINISTER

MINISTER OF STATE

SECRETARY

SS & FA

CCA

EA

JS (D)

JS (G)

JS (S)

IA (D)

DIR JP

DIR (LS)

DIR (LS)

DIR (IK)

DIR (JP)

DIR (NR)

DIR (SM)

AD IA

JT. DIR (OL)

DS (RB)

DS (DL)

DS (DL)

DS (R)

JIA (G)

US (HM)

US (NR)

US (NR)

US (GV)

US (AKM)

US (SK)

US (SR)

US (VKC)

US (SK)

US (PK)

AIA (M)

AIA (B)

DIA (T)

PAO

Internal Audit

Cash

O&M Section

Fin. Analyst

Budget

Finance

Hindi

Computerization

Library

Parliament

Gen. Admn.

Establishment

MF Desk

RM-II (BGC)

HSK (HSCL)

Vigilance

RTI

Coordination

HSK (KIOCL)

SAIL-RS

SAIL-OP

SAIL-CIP

SAIL-PC

RM-II (MOIL)

VSP

Trade Policy Desk

Research Inst. Desk

DC(R&D) MECON

RM-I

Technical Wing

Technical Wing

Technical Wing



Economic Adviser and a Chief Controller of Accounts. A Technical Wing under the charge of an Industrial Adviser gives advice in respect of technical matters besides discharging some secretariat work of technical nature like Research and Development.

FUNCTIONS OF KEY SECTIONS/UNITS IN THE MINISTRY

Administration

- General office administration and house-keeping
- Office equipment, procurement and maintenance
- Civil defence
- Departmental security
- Medical claims
- Issue of various items of contingencies to the officers/officials of the Ministry
- Protocol matters

Establishment

Matters relating to administrative/Personnel matters of all officers/officials in the Ministry of Steel, and issues related to the welfare of women.

Parliament Cell

Parliamentary matters relating to Ministry of Steel, including President's Address and Budget; meetings of the Consultative Committee and Standing Committee; Visits of Parliamentary Committees/Study Group to PSUs/Projects under Ministry of Steel.

Library

The library looks after all matters relating to acquisition of books, manuals, newspapers, journals, other reference books and maintaining catalogues etc.

NIC Cell

NIC Cell provides Information and Communication Technology (ICT) support to the Ministry. This includes design, development and implementation of e-Governance, Application and ICT-enabled services on Ministry-wide intranet portal, setting up and maintenance of ICT infrastructure, design, hosting and maintenance of the Ministry's official website in National Informatics Centre (NIC) domain, capacity building in the area of information technology by conducting in-house training programmes for officials and staff of the Ministry and providing technical consultancy on ICT related matters to the Ministry, its PSUs and subordinate organisations.

Hindi Section

For implementation of the Official Language Policy, a Hindi Section functions in the Steel Ministry.

Right to Information Cell (RI Cell)

This Cell looks after the work relating to implementation of the Right to Information Act, 2005 in the Ministry of Steel and monitoring its implementation in the Public Sector Undertakings and other offices under this Ministry, including submission of Annual Report relating to RTI activities to the Chief Information Commissioner.

Coordination Section

A Section for the Ministry dealing with all matters requiring coordination in respect of the subjects allotted to various Sections/Desks and takes care of the following:

- Comments on the Drafts Cabinet Notes received from other Ministries/Departments
- Preparation of Brief Note/Agenda for Press Conferences/meetings of Hon'ble Ministers
- Preparation of Induction Note for Minister/Secretary and material for President's Address to Parliament
- Monthly report to the Department of Personnel and Training's (DoPT's) on implementation of Appointments Committee of Cabinet (ACC) proposals



Hot Metal being treated in a Basic Oxygen Furnace of SAIL

- Monthly report to the Department of Public Enterprises (DPE) with regard to implementation of PESB recommendations. Circulation of guidelines/orders/instructions relating to Public Sector Enterprises issued by various agencies from time to time
- Parliamentary Questions/Assurances of other Ministries/Departments pertaining to Ministry of Steel as a whole
- Preparation of Annual Report of the Ministry of Steel

Vigilance Desk

The important activities look after by this unit includes:

- 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
- Furnishing the comments of the Ministry to the Central Vigilance Commission (CVC) on the investigation reports of the Central Bureau of Investigation
- Appointment of Chief Vigilance Officers (CVOs) in the PSUs in consultation with CVC and Department of Personnel & Training

Technical Wing

Entrusted with full-fledged secretariat/administrative work relating to R&D, Energy & Environment Management, rendering technical advice, besides judging winners for the Prime Minister's Trophy for the best integrated steel plant.

Industrial Development Wing

Industrial Development Wing (IDW) is primarily concerned with the growth and development of iron and steel industry in the private sector.



SAIL OP, PC, CIP, RS Sections, RM-I and RM-II Sections, HSK Section, MF and VSP Desks deal with matters pertaining to their respective PSUs including Parliamentary Questions, and policy issues.

Development Commissioner for Iron & Steel (DCI&S) Cell

On the recommendation of the Expenditure Reforms Commission (ERC), an administrative decision was taken to close down the office of the Devlopment Commissioner for Iron & Steel (DCI&S), Kolkata along with its four regional offices located at Chennai, Mumbai, Kolkata and New Delhi with effect from 23rd May, 2003. The residual work except the collection of data from secondary sector was transferred to DCI&S Cell in the Ministry of Steel.

The DCI&S Cell is handling matters relating to allocation of Iron and Steel to Small scale industry (SSI) units through Small Scale Industries Corparation (SSICs) and National Small Scale Industries Corporation (NSIC). In 2008, the Government of India decided to nominate NSIC as an agency parallel with SSICs for distribution of steel material to SSI units in states where SSICs also operate.

In order to insure that small scale industries obtain raw materials at reasonable price, the Government provides nominal handling charges of approxmately Rs. 500-550 per tonne to the corporations. The allocation of iron and steel items during the last three years for the distribution to SSI units is as follows:

(Quantity in '000 metric tonne)

Corporations	2007-08	2008-2009	2009-10*
SSICs	447	581	581
NSICs	49	118	162
Total	496	699	743

** as on 31st January, 2010*

The distribution policy for the year 2009-10 is given on the Ministry of Steel's website: **www.steel.nic.in**

OTHER RELATED ORGANS OF THE MINISTRY OF STEEL

Joint Plant Committee

The Joint Plant Committee (JPC) was established in 1964, following the recommendations of Dr. K.N. Raj Committee, for the purpose of formulating guidelines for production, allocation, pricing and distribution of iron and steel materials in the country. Indian steel industry was deregulated in 1992, which marked a turning point for the JPC. From that point onwards, the role, charter, and activities of the JPC changed considerably as it moulded itself into the role of data bank for the Indian steel industry, operating in a liberalised market-driven economy.

The JPC is headquartered at Kolkata with four regional offices in New Delhi, Kolkata, Mumbai and Chennai and an Economic Research Unit at New Delhi serving as a wing of JPC to carry out techno-economic studies. At present, the JPC comprises of the following members:

- Chairman - Joint Secretary, Ministry of Steel, Government of India
- Four representatives from Steel Authority of India Ltd. (SAIL)
- One representative each from TATA Steel Ltd. and Rashtriya Ispat Nigam Ltd. (RINL) and;
- One representative from Indian Railways, as an important consumer of steel

Economic Research Unit

The Economic Research Unit (ERU) is a part of the Joint Plant Committee (JPC). It was constituted in September, 1983 on the recommendations of the Bureau of Industrial Costs and Prices to assist the Ministry of Steel/JPC on economic policy and research. The ERU is mainly responsible for analysis of data collected by the JPC and for conducting specific studies/analysis entrusted to it by the Ministry of Steel.

Activities of JPC & ERU

The National Steel Policy, 2005 has laid down the long term Vision of Growth for the Indian steel industry, which is on the threshold of undergoing a major change, in terms of number, production, capacity and technology, among others.


India has achieved the rank of being the fifth largest producer of crude steel in the world, besides being the world's largest sponge iron producer. In such an environment, JPC, accredited with the ISO 9001: 2000 certification for its data/information services, has been pursuing a charter of jobs, keeping in mind the information needs of a rapidly changing industry.

Data & Information Services: JPC is officially empowered to collect data on the Indian iron and steel industry, resulting in the creation and maintenance of basic data bank on this industry. Major data items collected include:

- Capacity, Production and Stock of both Main and Secondary Producers of steel covering segments like crude steel, semi-finished steel, non-flat steel and the entire downstream range of flat steel;
- Domestic market prices of iron and steel;
- Export-import of iron and steel;
- Production, prices and reserves of raw materials for steel making;
- Production, availability and consumption of refractory;
- Consumption data of related category of iron & steel features in the database as a derived item.

Besides regular liaison with the units, segment-specific surveys form a major database maintenance activity for updating the population frame and aid policy decisions at the government level. Completed surveys include those on sponge iron, blast furnace, induction furnace/electric arc furnace, re-rolling and refractory units. A survey on Indian Ferro-Alloy Industry has been initiated.

Dissemination of information: Besides collection of data, dissemination of information to all stakeholders of Indian steel industry is another key activity of JPC. Major channels of information dissemination include:

- **JPC Bulletin on Iron & Steel:** Provides a monthly trend scenario of the Indian iron and steel industry in a global perspective.
- **Performance Review - Iron & Steel:** Encapsulates an exhaustive account of the developments in different aspects of the Indian iron and steel industry in the previous fiscal year.
- **Annual Statistics:** Provides a statistical profile of five-yearly database on different areas of Indian steel industry.
- **Survey Reports:** Include reports of various surveys conducted by JPC namely sponge iron, pig iron, Cold Rolled-Galvanised Plain/Corrugated, Electric Arc Furnace/ Induction Furnace.
- **Special Publications:** Include occasional publications, focusing on industry status, trends in development etc. and published under the aegis of the Ministry of Steel.
- **Through the website, www.jpcindiansteel.org:** Information on different aspects of the domestic iron & steel industry.

Some of the key projects undertaken by the Economic Research Unit (ERU) include: Estimating category-wise demand for the 11th Five Year Plan, estimating capacity and production in the Induction Furnace Sector (study undertaken on behalf of the Expert Group formed for revising JPC data), revision of targets of National Steel Policy in view of acceleration in economic growth, assessing adequacy of infrastructure for the proposed expansion in steel capacity in the 11th Plan with special reference to Orissa, Chattisgarh and Jharkhand. Besides monthly analysis of market prices, formation of pre-budget proposals for the steel sector, studies on competitiveness of the Indian steel industry, ERU also functions as the Secretariat to the Steel Price Monitoring Committee and to the Sub-committee on relative movement of Hot Rolled Coil & Cold Rolled Coil prices.

Support services: Varied support was provided to the steel industry or the Ministry of Steel on different issues/ activities, related to development of industry and/or spread of awareness on usage of steel. Some of the key activities here include:

- Organisational responsibility of the Steel Consumers' Council meetings of the Ministry of Steel, which provides a forum for interaction between the producers and consumers of steel in the country.
- Showcasing the multifaceted usage of steel in daily life through organisation and participation (every year since 2002) in the 'Steel Pavilion' of the Ministry of Steel in the 'India International Trade Fair' (IITF), New Delhi.
- JPC took initiatives to propagate knowledge, awareness on the benefits of usage of steel and bridge the information gap between the producers and end-users of steel. This was achieved through lending support to, as well as organisation of seminars/workshops on technology, infrastructure, environment, market trends, budget, policymaking and other topical issues.



- Education is the stepping stone to greater success. The Biju Patnaik National Steel Institute (BPNSI) in Puri/Orissa, the National Institute for Secondary Steel Technology (NISST), Mandi Gobindgarh and the Institute for Steel Development and Growth (INSDAG) in Kolkata are the institutions initiated in this regard under the aegis of the Ministry of Steel.

Secretarial functions of the SDF: JPC is the secretariat of the Steel Development Fund (SDF) Managing Committee comprising Secretary, Ministry of Steel as the Chairman and Secretary, Department of Expenditure, Government of India and Secretary, Planning Commission, Government of India as Members. The Joint Secretary, Ministry of Steel is the Member Secretary. The Ministry of Steel has decided to promote Research and Development for which funds are earmarked every year, from SDF. This fund thus provides financial assistance to the industry from the interest of SDF corpus for taking up projects like, technology upgradation, measures connected with pollution control, activities related to Research & Development. Out of the SDF Corpus, JPC also renders assistance in matters relating to:

- Rebate to the Small Scale Industries Corporation (SSIC) engaged in the distribution of steel.
- Award of Prime Minister's Trophy for the best integrated steel plant.
- Market Development Projects.
- Global Environment Facility/UNDP project for environment and pollution control in the iron and steel sector.

Ferrous Scrap Committee

JPC has also been entrusted with the secretarial functions of the Ferrous Scrap Committee (FSC) which inter-aila include management of the Ferrous Scrap Development Fund. FSC was established in 1979, vide notification of the Government of India, in the erstwhile Ministry of Steel, Mines and Coal, Department of Steel, No. S.O. 854 (E)/ESS/Comm/Iron & Steel dated the 19th December, 1979 and was re-constituted on 28th July, 1997. At present, it comprises of the following members:

- Chairman - Joint Secretary, Ministry of Steel, Government of India
- Director (Finance), Ministry of Steel, Government of India
- President, Iron, Steel Scrap & Shipbreakers Association of India
- Chairman and CEO, Gujarat Maritime Board

FSC performs the following functions:

- Support to Infrastructure development conducive to ship breaking activities
- Support to Scrap handling / processing facilities
- Conducting studies on various aspects of ship breaking



LIST OF PUBLIC SECTOR UNDERTAKINGS AND COMPANIES 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	Maharashtra Elektrosmelt Ltd., Chandamul Road, Chandrapur-442401 (Maharashtra)
2.	Rashtriya Ispat Nigam Ltd.	Administrative Building, Visakhapatnam - 530031 (Andhra Pradesh)	
3.	NMDC Ltd.	Khanij Bhawan, 10-3 -311/A, Castle Hills, Masab Tank, Hyderabad-500028 (Andhra Pradesh)	J&K Mineral Development Corporation Ltd. 33 B/ B IInd Extn Gandhi Nagar, Jammu-180004 (J&K)
4.	Maganese Ore (India) 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.	Sponge Iron India Ltd.	Khanij Bhawan, 10-3-311/A, Castle Hills, Masab Tank, Hyderabad-500028, (Andhra Pradesh)	
9.	KIOCL Ltd.	II Block, Koramangala Bengaluru-560034 (Karnataka)	
10.	Govt. Managed Companies - Bird Group of Companies	FD-350, Sector-III, Salt Lake City, Kolkata-700106 (West Bengal)	



CHAPTER-IV

PUBLIC SECTOR

The companies under the Ministry of Steel have performed well in the last five years. Profit After Tax (PAT) of the Companies with this Ministry was around Rs. 7,772 crore during the year 2009-10 (upto December 2009). The details may be seen at **Annexure-XIII**. 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. 11,298 crore during the year 2009-10 (upto December 2009). The details may be seen at **Annexure-XIV.**

STEEL AUTHORITY OF INDIA LIMITED (SAIL)

The Steel Authority of India Limited (SAIL) is a company registered under the Indian Companies Act, 1956 and is an enterprise of the Government of India. It has five integrated steel plants at Bhilai (Chattisgarh), Rourkela (Orissa), 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 Visveswaraya Iron and Steel Plant at Bhadravati (Karnataka). In addition to these, a Ferro Alloy producing plant at Chandrapur is owned by Maharashtra Elektrosmelt Limited which is a subsidiary of SAIL. SAIL has seven central units viz. Research and Development Centre for Iron and Steel (RDCIS), Centre for Engineering and Technology (CET) and Management Training Institute (MTI), all located at Ranchi, Central Coal Supply Organisation (CCSO) located at Dhanbad, and Raw Materials Division (RMD) and Environment Management Division (EMD), located at Kolkata.

During the year, pursuant to the Order of amalgamation issued by the Ministry of Corporate Affairs under Section 396 of the Companies Act, 1956 on 28th July, 2009, the Bharat Refractories Limited (BRL) has been amalgamated with SAIL with effect from 1st April, 2007. The BRL has four plants in the states of Jharkhand and Chhatisgarh and is engaged in the business of manufacturing, trading and otherwise dealing in assorted types of refractories. Consequent to amalgamation, it has become a unit of SAIL and renamed as SAIL Refractory Unit (SRU).

The Central Marketing Organisation (CMO), with its headquarters at Kolkata, coordinates the countrywide marketing and distribution network. The SAIL Consultancy Division (SAILCON) functions from New Delhi.

A panoramic view of the Blast Furnaces that form the skyline of SAIL's Bhilai Steel Plant.



Hon'ble Union Minister of Steel, Shri Virbhadra Singh, dedicating the 0.8 million tonne Slab Caster Complex in SMS-II at Bhilai Steel Plant (SAIL).

Capital structure

The authorised capital of SAIL is Rs. 5000 crore. The paid-up capital of the company was Rs. 4130.40 crore as on 31st March, 2009, out of which 85.82% is held by the Government of India and the balance 14.18% by the financial institutions/GDR-holders/banks/employees/individuals etc.

Financial performance

The company recorded turnover of Rs.48,681 crore in the financial year 2008-09. The post-tax net profit for the year was Rs. 6,175 crore. The company has paid dividend @ 26 % of paid up equity capital for the year 2008-09. The sales turnover and net profit after tax for nine months ended 31st December, 2009 were Rs. 30928.82 crore and Rs. 4669.47 crore respectively.

Production performance

The details of the actual production are given below:

('000 tonne)

Items	2008-2009	2009-10 (upto December 2009)
Hot Metal	14442	10908
Crude Steel	13411	10175
Saleable Steel	12494	9366

Raw materials

During the year 2008-09, the total iron ore production from captive mines of the company was 24.43 million tonne as against 26.37 million tonne in the year 2007-08. The flux (limestone/dolomite) production of captive mines during the year was 2.4 million tonne in comparison to 2.6 million tonne in the year 2007-08. The production of iron ore and fluxes during the period April-December '09 was 17.3 million tonne and 1.5 million tonne respectively.

Manpower

The manpower strength of SAIL as on 31st March, 2009 was 121295. The reduction in manpower achieved during the year stood at 7,509. The manpower strength of SAIL as on 1.1.2010 was 119105 (including MEL and SRU), achieving reduction of 4499 manpower during the year 2009-10 (upto December, 2009).



MAHARASHTRA ELEKTROSMELT LTD.: A SUBSIDIARY OF SAIL

Maharashtra Elektrosmelt Limited is situated in Chandrapur, Maharashtra, and is a major producer of ferro manganese and silico manganese for captive use of SAIL plants.

The authorised and paid-up share capital of the company as on March 31, 2009 were Rs. 30 crore and Rs. 24 crore respectively. SAIL's holding is approximately 99.12% of the paid-up capital.

Financial performance

During the year 2008-09, the company recorded a turnover of Rs. 425.06 crore and made a net profit of Rs. 40.88 crore. The turnover and net profit after tax of the Company during April 2009 to December 2009 are Rs. 283.65 crore and Rs. 33.03 crore respectively.

Production performance

The production of all grades of ferro alloys during 2009-10 is as under:

(tonne)

Material	2008-09	2009-10 (upto December 2009)
High Carbon Ferro Manganese	68789	45322
Silico Manganese	35640	37982
Medium Carbon Ferro Manganese	1763	899

RASHTRIYA ISPAT NIGAM LTD. (RINL)

RINL is the first shore based integrated steel plant in the country located at Visakhapatnam in Andhra Pradesh. The plant was commissioned in August 1992 with a capacity to produce 3 million tonne per annum (Mtpa) of liquid steel. The plant has been built to match international standards with state-of-the-art technology, incorporating extensive energy saving and pollution control measures. RINL has an excellent layout capable of expanding upto 16 Mtpa. RINL is today on the growth path and almost doubling it's capacity to 6.3 Mtpa of liquid steel and the new units are set to come on stream progressively from 2010-11.

Within a short period of time since its commissioning, the plant achieved high levels of performance in production and technological norms. Right from the year of its integrated operation, RINL established its presence both in the domestic and international markets with its superior quality of products. RINL has been awarded all the three international standards certificates, namely, ISO 9001:2000, ISO 14001:1996 and OHSAS 18001:1999. RINL is the first Indian steel plant to get the 'Capability Maturity Model Integrated (CMMI) - Level 3' certification issued by 'Software Engineering Institute (SEI) of Carnegie Mellon University', USA for implementation of IT systems in RINL. The company has emerged as a good corporate citizen and has contributed substantially for the development of the region.

The physical performance in terms of production and percentage achievement of rated capacities along with financial/ marketing performance for the year 2008-09 and 2009-10 (April-December 2009) is given below:

Item	2008-09	April-December 2009
Production (in million tonne); Capacity utilisation (%)		
Hot Metal	3.55 (104%)	2.9 (113%)
Liquid Steel	3.15 (105%)	2.4 (108%)
Saleable Steel	2.70 (102%)	2.3 (114%)
Financial and Marketing performance (Rs. in crore)		
Gross Turnover	10411	7543
Profit After Tax	1336	464
Net worth	12420	12884



A view of the Sinter Plant at Visakhapatnam Steel Plant (RINL).

Value Added steel production of 17.18 lakh tonne during Apr-Dec 09 was 8% more than the levels achieved in the corresponding period last year. Value Added steel production was 76% of the saleable steel produced.

NMDC LTD.

NMDC was incorporated on November 15, 1958, as a Government of India Enterprise. It is a Navratna Company engaged in the business of developing and exploiting mineral resources of the country (other than coal, oil, natural gas and atomic minerals). Presently its activities are concentrated on mining of iron ore and diamonds.

NMDC operates the large mechanized iron ore mines in the Country at Bailadila (Chhattisgarh) and Donimalai (Karnataka). The Diamond Mine is situated at Panna (Madhya Pradesh). The mining activities at Diamond Mine, Panna were stopped w.e.f. 22.08.2005 due to environmental reasons. Subsequently several developments took place. Madhya Pradesh State Authorities issued formal orders on 19.06.2009 for restarting the mining activities. Production has resumed w.e.f 20.06.2009 after a gap of around 4 years.

All the iron ore production units have been accredited with ISO 9001:2000 and ISO 14001:2004 certifications and also R&D Centre of NMDC was accredited with ISO 9001:2000 certification.

Finance Capital Structure

The Authorized share capital of the company is Rs. 400 crore. The paid up equity share capital is Rs. 396.47 crore. Outstanding loans from Government of India are Nil.

Financial Performance

The financial performance of the company for the year 2009-10 as against previous year 2008-09 is as below:

(Rs. in crore)

Item	2009-10 (upto December)	2008-09
Sales/Turnover	4255.76	7564.03
Gross Margin	3693.90	6725.25
Profit before tax	3642.64	6648.23



MANGANESE ORE (INDIA) LTD. (MOIL)

Manganese Ore (India) Limited (MOIL) was established in 1962. It is the largest producer of Manganese ore in India. At the time of inception, the Central Province Manganese Ore Co. Ltd. (CPMO) held 49% of shares and the remaining 51% were held in equal proportion by Government of India and the State Government of Madhya Pradesh and Maharashtra. Subsequently, in 1977, Government of India acquired the shares held by CPMO in MOIL and it became a wholly owned Govt. Company with effect from October, 1977. As on 31st March, 2009, the paid up capital of the Company was Rs. 28 crore, which has been increased to Rs. 168 crore as on 31.12.2009. Government of India hold 81.57% shares in MOIL while the State Governments of Maharashtra and Madhya Pradesh are holding 9.62% and 8.81% shares respectively.

MOIL produces and sells different grades of Manganese ore as below:

- 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 Tonne per annum was also set up in 1998 by MOIL for value addition.

Finance

Authorised Capital of the Company was Rs. 100 crore and paid-up Capital was Rs. 28 crore as on 31st March, 2009. Subsequently, the Authorised Capital of MOIL has been increased to Rs. 250 crore and paid up capital to Rs. 168 crore as on 31.12.2009.

Operational and Financial Results

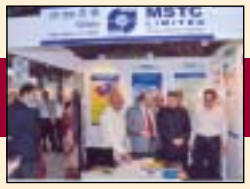
The physical and financial performance of the Company for the last 3 year i.e. 2006-07, 2007-08 and 2008-09 and for 2009-10 (upto December, 2009) are given below:

(Rs. in crore)

S. No.	Item	2006-07	2007-08	2008-09	2009-10 (upto December 2009 (provisional)
1	Production				
	a) Manganese Ore ('000 tonne)	1047	1365	1175	794
	b) Electrolytic Manganese Dioxide (tonne)	1312	1122	1240	807
	c) Ferro Manganese (Tonne)	10200	11130	10120	6895
2.	Total Income (Rs. in crore)	451.82	1030.04	1407.99	746.08
3.	Profit before tax (Rs. in crore)	210.21	734.91	1006.76	424.09
4.	Profit After tax (Rs. in crore)	134.20	479.82	663.79	279.94
5.	Reserves (Rs. in crore)	433.49	784.68	1292.87	1323.37
6.	Net Worth* (Rs. in crore)	455.81	812.68	1320.87	1491.37
7.	Book value per share (Rs.)	1604.46	2902.16	4717.40	88.77**
8.	Earning per share (Rs.)	479.31	1713.63	2370.69	16.66**

(*) As on 31st March of the year.

(**) MOIL has issued bonus shares in the ratio of 1:5 and also the face value of the shares has been changed from Rs. 100/- to Rs. 10/- each. Consequent upon this, the number of shares has increased from 28 lakh to 16.80 crore and paid up share capital has increased from Rs. 28 crore to Rs. 168 crore. Accordingly, the book value of shares and Earning per shares have also changed.



Marketing

About 95% of manganese ore is used in steel industries. The year 2008-09 has been a roller-coaster ride for most of the industries all over the world and same was continuing especially in first half of the year 2009. During the first half of the current year 2009-10, the demand and prices of manganese ore, Ferro manganese and Silico manganese were very sluggish, however, since second half of the year, the economy is improving slowly. The prices and demand of steel as well as manganese ore are improving and it is expected that the same will continue in coming times. The total income and profit after tax of the Company during the year 2008-09 were Rs. 1407.99 crore and Rs. 663.79 crore respectively. The sales performance achieved during 2008-09 and 2009-10, is as under:

Sl. No.	Details	2008-09		2009-10 (upto December 2009) (Provisional)	
	Sales	**Quantity (tonne)**	**Value (Rs. in crore)**	**Quantity (tonne)**	**Value (Rs. in crore)**
1	Manganese Ore				
	Domestic	1023486	1187.28	867139	609.49
	Export	-	-	-	-
	Total	1023486	1187.28	867139	609.49
2	Electrolite Manganese Dioxide	1419	9.28	625	4.24
3	Ferro Manganese	9425	80.03	6388	33.42
4	Other income*	-	131.40	-	106.75
5	Grand Total		1407.99		753.90

** including sale of eletricity*

Cost Reduction Plans

The Company has introduced following cost reduction measures:

- Proper manpower planning and introduction of Voluntary Retirement Scheme to reduce surplus manpower.
- Judicious machanization of various mining operation to improve the overall production and productivity thereby reducing cost per ton ultimately.
- Implementation of benchmarks so fixed for consumption of major consumables such as Steel, Cement, Explosives, Spares, POL etc.

MSTC LTD.

MSTC Ltd. (formerly Metal Scrap Trade Corporation Ltd,) a Government of India enterprise, under Ministry of Steel was set up on 9th September 1964 as a canalising agency for export of scrap from the country. With the passage of time, the company emerged as the canalising agency for the import of scrap into the country. Import of scrap was de-canalised by the government in 1991-92. Presently, the company undertakes trading activities, e-commerce, disposal of ferrous and non-ferrous scrap, surplus stores and other secondary arising generated mostly from Public Sector Undertakings and Govt. Departments, including Ministry of Defence. The Company also undertakes import of raw materials in bulk required by large industrial houses on back-to-back basis. The items of import include petroleum products, LAM Coke, Coking Coal, DR Pellets, HR Coils and Melting Scrap etc. It also undertakes trading in items within the country in competition with any other private trader.



Financial Performance

The financial performance of the company for the last three years is given below:

(Rs. in crore)

	2007-08	2008-09	2009-10 (Upto December 2009) (Provisional)
A.Physical			
(i) Agency (including e-procurement)	5,579	11,121	3,901
(ii) Marketing	6,345	8,881	3,382
(iii) Total Volume of Business	11,924	20,002	7,283
B. Financial			
(i) Income	5,197	7,082	2,209
(ii) Operating Profit	138.33	132.09	72.06
(iii) Interest, Depreciation and Provision	3.863	2.56	1.64
(iv) Profit before Tax	134.47	129.53	70.42
(v) Profit after Tax	92.20	85.05	43.48

** Provisional*

FERRO SCRAP NIGAM LTD. (FSNL)

FSNL is a wholly owned subsidiary of MSTC Ltd. with a paid up capital of Rs. 200 lakh. 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 and Raigarh. The scrap recovered is returned to the steel plants for

Processing of Mill rejects through gas cutting operations by FSNL, at Bhilai Steel Plant.



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.

Physical performance

The production performance of FSNL for the last two years and for the year 2009-10 (upto December 2009) is given below:

Item	2007-08	2008-09	2009-10* (upto 31.12.2009)
Recovery of scrap (lakh metric tonne)	23.77	22.63	17.39
Market Value of Production (Rs. in crore)	1045.88	995.82	765.05
* Provisional			

Financial performance

(Rs. in lakhs)

Item	2007-08	2008-09	2009-10* (upto 31.12.2009)
Total Turnover i.e, Service charge realised including misc. Income,etc.	12822.32	13730.33	100.93
Gross Margin Before Interest & Depeciation	1586.00	1683.17	1576.30
Interest & Depeciation	1385.11	1251.96	1181.25
Profit Before Tax	200.89	431.21	395.05
** Provisional*			

CRM Complex at Salem Steel Plant under construction by HSCL.



HINDUSTAN STEELWORKS CONSTRUCTION LIMITED (HSCL)

Hindustan Steelworks Construction Limited (HSCL) was established in 1964, as a construction agency of the Government of India under the Ministry of Steel, to mobilise indigenous capability for putting up integrated steel plants in the country. The young organisation rose to the occasion and successfully met the challenge by bringing together competent human resources and mobilising a fleet of updated construction equipment. Since then, there has been no looking back. In the years that followed, almost every major steel plant in India was constructed by HSCL. 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 centres and hospitals etc. The company undertook and successfully completed a number of turnkey projects also for various clients. Today, HSCL is an ISO 9001-2000 company and its capabilities cover almost every field of construction activities.

Starting with a modest Rs. 5 crore in 1965-66, the company achieved a turnover of Rs. 538.48 crore (upto December 2009). The order book also is swelling every year. The order book stood at a healthy Rs. 691 crore at the end of 2009. Turnover and order booking registered CAGR of 25% and 26% respectively during the last four years; much more than the envisaged industry growth of 2.4% during 2008-09. The company has so far executed orders worth more than Rs. 9335 crore till December 2009 since inception. The financial results also are improving with the company earning an operating profit of Rs. 31.84 crore during 2009-10 (upto December 2009).

Being in the public sector, HSCL pledges to comply with the framework of transparent corporate governance and considers it a primary responsibility to participate in the development of remote rural areas of the country under the government's Bharat Nirman Programme.

Capital structure

The authorised and paid-up share capital are Rs. 150 crore and Rs. 117.10 crore respectively.

Financial performance

Year	2008-09	2009-10# (April-December)
Turnover	721.26	538.48
Operational Profit (PBIDT)	64.63	31.84
Net Loss	6.88*	42.48**

* *The net loss includes Rs. 2.96 crore, towards voluntary retirement expenditure charged during the year, and Rs. 63.54 crore towards interest on Government of India (GOI) loan.*

** *The net loss includes Rs. 72.43 crore towards interest on GOI loan.*

\# *Provisional*

Order booking

The order booking position during 2009-10 (upto December 2009) is as below:

Steel Units	=	Rs. 217 crore (25%)
Infrastructure Units	=	Rs. 654 crore (75%)
Total	**=**	**Rs. 871 crore**

HSCL has secured orders of Rs. 691 crore till 31st December 2009. The break up is as below:

Steel Units	=	Rs. 76 crore (11%)
Infrastructure Units	=	Rs. 615 crore (89%)
Total	**=**	**Rs. 691 crore**

Manpower position

The manpower position as on April 1, 2009	=	1248
The manpower position as on January 1, 2010	=	1089

Separation on Voluntary Retirement Scheme (VRS)

Employees separated on VRS during 2009-10	=	-
Employees separated on VRS after restructuring in 1999	=	11,485


MECON LTD.

Projects Completed

- Development of continuous NOx monitoring system, funded by Steel Development Fund (SDF), Ministry of Steel.
- Development and implementation of slag detection system for converter and caster, funded by SDF, Ministry of Steel.

Supply

Successfully completed and received money for the supply of two nos. of "Solid State Microclimate Conditioning Unit [SSMCU]" for MBT Arjun and other armoured vehicles against the order from Defence Institute of Physiology and Allied Sciences (DIPAS), Unit of Defence Research & Development Organisation (DRDO).

On-going Projects

The project on "Development of thermoelectrically cooled / heated helmet for industrial applications" is sanctioned by Ministry of Steel and fund is yet to be received. Project will start after receiving the 1st installment from SDF, MoS.

New R & D Proposal under consideration

- Submitted new R&D project on "Portable Microclimate Thermoelectric Cooling System for Flight Suit" to Vikram Sarabhai Space Centre, Trivandrum (Department of Space) in September, 2009.
- Submitted new R&D project on “Development of continuous multi-gas monitor” to SDF, Ministry of Steel” on September 2009.
- New R&D project on "Infrared Camera based ladle condition monitoring system" will be submitted shortly to funding authority.

Other R & D Efforts

International Recognition

- **MECON** received the certificate of technical excellence for technical presentation on "BOF Slag detection using a long wave Infrared Camera" in INFRAMATION 2009, Las Vagas, Nevada, USA.
- **Patent under process:**
  - Patent entitled "Infrared imagery based slag detection system for Basic Oxygen Furnace (BOF) Converter" has been filed on October 13, 2009.
  - Patent entitled "Continuous NOx Monitoring System" has been filed on October 13, 2009.
- **Publication**
  - International Journal : One
  - International Conference : One
- **Training**
  - Two R & D engineers were trained on “Autocad”.
  - Four R & D engineers were trained on “Lab View”.
  - One R & D engineer was trained on “Skill Improvement”.
- **Seven full time scientists/technologists are engaged in R & D.**

SPONGE IRON INDIA LTD. (SIIL)

Sponge Iron Plant of the company was initially established as a demonstration unit with a capacity of 30,000 tonne per annum (tpa) with UNDP/UNIDO assistance to establish the techno-economic feasibility of producing sponge iron (a part substitute for ferrous scrap used by Induction and Electric Arc Furnaces) from lump iron ore and 100% non-coking coal. The unit, based on non-coking coal from Singareni Collieries Company Ltd. (SCCL) and iron ores available at various regions in Andhra Pradesh and neighbouring states, went into regular operations in November 1980. Several improvements and modifications were effected to the Sponge Iron Plant based on Rotary Kiln Process to suit the local raw materials and operating conditions. As a result, it has not only helped developing SIIL technology but also paved way for the development of Sponge Iron Industry in the Country. The Company doubled its capacity from 30,000 tonne per annum to 60,000 tonne per annum in October 1985.



Capital structure

The authorised share capital of the Company stood at Rs. 66 crore on 31.12.2009; paid up capital was Rs. 65.10 crore. (Rs.64.27 crore held by Government of India and the balance Rs. 0.83 crore by the Government of Andhra Pradesh)

Performance

The Production and Financial Performance of the Company during the last two years, together with provisional figures for 2009-10 upto 31.12.2009 is furnished in the table below:

	2007-08	2008-09	2009-10 (upto December 09) (Provisional)
Production			
- Sponge Iron (tonne)	43,331	30,489	24,076
- Power Generation (lakh Kwh)	34	34	32
- Capacity Utilisation (%)	72	72	40
Sales			
- Sponge Iron (tonne)	44,447	25,203	28,671
- Sales Turnover (Net) (Rs. in lakh)	5,573	4,080	3,192
- Generation of Internal Resources (Rs. in lakh)	495	6	(-) 927
- Net Profit (Rs. in lakh) (PBT)	647	-129	(-) 1,035

KIOCL LTD.

KIOCL Limited (formerly Kudremukh Iron Ore Company Limited), an 100% EOU, ISO 9001-2008, ISO 14001-2004 and ISI 18001-2002 Company was established in April, 1976 to meet the long term requirements of Iran. An Iron Ore Concentrate Plant of 7.5 million tonne capacity was set up at Kudremukh. This project was to be financed in full by Iran. However, as Iran stopped further loan disbursements after paying US $ 255 million, the project was completed as per schedule with the funds provided by Government of India.

While the project was commissioned on schedule, consequent upon the political developments in Iran, they did not lift any quantity of Concentrate. As a diversification measure, the Government approved the construction of a 3 million tonne per year capacity Pellet Plant in Mangalore in May, 1981. The capacity of the Pellet Plant was increased to 3.5 million tonne with additions/modifications. The plant went into commercial production in 1987 and is now exporting Iron Ore Pellets to China and also to domestic units such as Ispat Industries Limited and SAL Steel Limited. Consequent upon the Hon'ble Supreme Court's verdict, Mining was stopped at Kudremukh with effect from 31.12.2005 and Pellet Plant is operated with Hematite Iron Ore purchased from NMDC.

Production

The target set for production during the year 2009-10 is 2.65 million tonne of Pellets. Target set for production upto December 2009 was 1.910 million tonne. Actual production upto December 2009 was 0.573 million tonne which represents 30% target fulfilment. There was shortfall in production of Pellets upto December 2009. The shortfall is due to close down of Pellet plant during first quarter of 2009-10 and upto 17.07.2009, from 19.08.2009 to 19.10.2009 and from 02.12.2009 onwards. The demand for Pellets is less and the prices are picking up from December 2009 onwards.

The target set for production of Pig Iron including Auxiliary during 2009-10 is 1,70,000 tonne. Target set for production upto December 2009 was 1,26,000 tonne. Actual production upto December 2009 was 62,041 tonne which represents 49% of the target. There was shortfall in production of Pig Iron upto December 2009. The shortfall was on account of shut down of plant from 05.08.2009 due to depressed market condition.



Despatches

Budgeted sales for the year 2009-10 is Rs. 1948.10 crore. Targeted sales upto December 2009 was Rs. 1412.25 crore. Actual sales upto December 2009 was Rs. 502.61 crore representing 36% of the target. Shortfall in financial performance upto December 2009 was due to lower despatch of Pellets and Pig Iron and lower price realisation.

The Sales revenue during the last five years and upto December 2009 during 2009-10 is as under:

(Rs. in lakh)

Year	Concentrate	Pellets	* Blast Furnace Unit	Total
2009-10 (upto December 2009)	-	37681	12581	50261
2008-09	-	99410	23488	122898
2007-08	-	117385	35626	153011
2006-07	-	26744	-	26744
2005-06	12091	111137	-	123228
2004-05	16050	169327	-	185377

* *The erstwhile Kudremukh Iron and Steel Company Limited merged with the Company with effect from 1st April, 2007, hence information furnished from the year 2007-08 onwards.*

Financial performance

An overview of the performance of KIOCL during the year 2009-10 upto December, 2009 together with actuals for the previous three years, is indicated below:

(Rs. in lakh)

Particulars	2009-10 (upto December 2009)	2008-09	2007-08	2006-07
Total value of Sales	50261	122898	153011	26744
Gross Margin	(12857)	6767	21174	5181
Profit after Tax	(18487)	2201	10816	1377

The erstwhile Kudremukh Iron and Steel Company Limited merged with the Company with effect from 1st April, 2007, hence financial information furnished above includes financial performance of Blast Furnace unit for the year 2007-08 onwards.

BIRD GROUP OF COMPANIES (BGC)

Consequent upon nationalization of the Undertaking of Bird & Company in 1980, the following seven companies came under the administrative control of the Ministry of Steel ,Government of India.

- The Orissa Minerals Development Company Ltd. (OMDC)
- The Bisra Stone Lime Company Ltd. (BSLC)
- The Karanpura Development Company Ltd. (KDCL)
- Scott & Saxby Ltd. (SSL)
- Eastern Investment Ltd. (EIL)



- Burrakar Coal Company Ltd. (Burrakar)
- Borrea Coal Company Ltd. (Borrea)

At the time when the Bird Group of Companies came under the administrative control of the Ministry of Steel, Government of India, all of them were financially sick and burdened with various problems. With the financial support from the Government of India, outstanding liabilities could be settled to a considerable extent.

The status of the companies are as under:

- Burrakar and Borrea Coal companies become non-operational after nationalization of coal mines. The two companies are under liquidation and the official liquidator has taken over the assets and liabilities of these two companies.
- The cabinet in its meeting held on 10.09.2009, has approved the Restructuring proposal of Bird Group of Companies (BGC). The proposal envisages converting companies viz. EIL, OMDC and BSLC under BGC, into Government companies/Public Sector Undertakings and vesting their management control to Rashtriya Ispat Nigam Limited (RINL), in a subsidiary cum holding structure in order to make these companies economically viable and sustainable. The commercially unviable companies viz KDCL and SSL are proposed to be wound up and their employees to be adjusted in other sister companies under the Group or would be offered Voluntary Retirement Scheme (VRS).

PERFORMANCE OF THE INDIVIDUAL OPERATING COMPANIES.

THE ORISSA MINERALS DEVELOPMENT COMPANY LTD. (OMDC)

Location of Mines, Activities and Capital Structure

The mines of the company are located around Barbil, Keonjhar district, Orissa. The activities relate to mining and marketing of iron ore and manganese ore. The authorized as well as paid up capital of the Company is Rs. 60 lakh.

Performance

The performance of the company is given below:

	2007-08	2008-09	2009-10* (April-December 2009)
Production ('000 Metric tonne)	1821	1695	575
Sales (Rs. in crore)	246.31	271.81	64.29
Gross Margin before Interest on government Loans & Depreciation (Rs. in crore)	227.87	289.29	91.83
Net Profit/Loss (Rs. in crore)	148.83	181.81	59.22

* *Provisional*

THE BISRA STONE LIME COMPANY LTD. (BSLC)

Location of Mines, Activities and Capital Structure

The mines of the Company are located around Birmitrapur in the district of Sundargarh, Orissa. The main activities of the company are mining and marketing of Limestone and dolomite. The authorized as well as paid up capital of the Company is Rs. 50 lakh.



Performance

The performance of the company is given below:

	2007-08	2008-09	2009-10* (April-Dec, 2009)
Production ('000 Metric tonne)	1,113	1,070	873
Sales (Rs. in crore)	46.31	48.94	40.83
Gross Margin before Interest on Government Loans & Depreciation (Rs. in crore)	1.19	5.43	3.04
Net Profit/Loss (Rs. in crore)	-81.61	-91.38	2.41
** Provisional*			

THE KARANPURA DEVELOPMENT COMPANY LTD. (KDCL)

Location of Mines, Activities and Capital Structure

The mines of the Company are located around Sirka, Jharkhand and Bihar. The company produces limestone suitable for cement manufacture. The authorized and paid up capital of the Company is Rs. 40 lakh and Rs. 20 lakh respectively.

Performance

The performance of the company is given below:

	2007-08	2008-09	2009-10* (April-December 2009)
Production ('000 Metric tonne)	51	36	29
Sales (Rs. in crore)	1.52	1.01	0.84
Gross Margin before Interest on Government Loans & Depreciation (Rs. in crore)	-0.13	0.38	-0.22
Net Profit/Loss (Rs. in crore)	-2.21	-2.56	-0.22
* Provisional			



CHAPTER-V

PRIVATE SECTOR

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 major steel producers on one hand and relatively smaller and medium scale units such as Sponge iron plants, Mini Blast Furnace units, Electric Arc Furnaces, Induction Furnaces, Re-rolling Mills, Cold-rolling Mills and Coating 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. A brief report on activities of some of the major steel companies is furnished below, based on the input furnished by the respective companies.

TATA STEEL LTD.

TATA Steel has an integrated steel plant, with an annual crude steel making capacity of 6.8 million tonne, located at Jamshedpur, Jharkhand.

A panoramic view of TATA Steel at Jamshedpur.

The crude steel production of TATA Steel during the period April-December 2009-10 is 4.86 million tonne which is higher by 18.6% over the production of 4.105 million tonne last year. The saleable steel production was at a higher level during the period April-December 2009-10 (3.717 million tonne) compared to the corresponding period last year (3.310 million tonne).

As part of the Brownfield expansion project, TATA Steel has commissioned H Blast Furnace in May 2008, Caster #3 in October 2008 at the steel melting shop #1 and upgradation of Hot Strip Mill roughing mill as part of 1.8 million tonne growth plan to reach capacity of 6.8 million tonne. TATA Steel is continuing with its programme of expansion of hot metal and steel making capacity by 3 million tonne to reach 10 million tonne.

- Crude steel capacity as on March 31, 2009: 6.8 million tonne (Jamshedpur works)
- Tata Steel has also envisaged massive expansion of its capacities through various greenfield projects at Sarai Kala (Jharkhand), Kalinganagar (Orissa) and Bastar (Chhattisgarh).

JSW STEEL LTD.

JSW Steel, Vijayanagar Works

JSW Steel is a 6.9 Million Tonne Per Annum (MTPA) integrated steel plant, having a process route consisting broadly of iron ore beneficiation - pelletisation - sintering - coke making - iron making through blast furnace, as well as Corex process which entails steel making through the following process route: BOF-continuous casting of slabs - hot strip rolling - cold rolling mills.

JSW Steel has the distinction of being certified ISO-9001:2000 Quality Management System, ISO-14001:2004 Environment Management System and OHSAS 18001:1999 Occupational Health and Safety Management System. The Brownfield expansion plan of the Vijayanagar plant is in progress and is likely to be completed by 2010, with a total installed capacity of 9.6 MTPA.

JSW Steel, Tarapur and Vasind Works

JSW Steel Tarapur and Vasind Works specialise in down-streaming facilities which include: 1.0 MTPA cold rolling, 0.9 MTPA Hot Dip Galvanising (HDG), 0.1 MTPA colour coating, 0.1 MTPA CRCA products and 0.3 MTPA hot rolled plates capacity. JSW Steel has a distinction of being certified to ISO-9001:2000 Quality Management System.



5 Mtpa (Phase-I) Pellet Plant Complex of JSPL at Barbil in Orissa.

JINDAL STEEL & POWER LTD.

Jindal Steel & Power Limited is one of the fast growing major steel units in the country. Raigarh plant of JSPL has a present capacity of 1.37 MTPA sponge iron plant, 2.40 MTPA Steel Melting Shop (SMS), 1.0 MTPA Plant Mill, 2.30 sinter plant, 0.8 MTPA coke oven and a 330 mega watt captive power plant.

Capacity addition plan at Raigarh

Enhancement of the present steel capacity from 2.4 million tonne to 6.0 MT in a phased manner by 2011 will incorporate:

- 2.0 MT gas based Direct Reduced Iron (DRI) producing gas by coal gasification
- 4000 cubic metre blast furnace
- 3 MT steel melting shop with electric arc furnace route and thin slab caster.
- Hot strip mill (compact strip product technology)
- Cement plant to consume the blast furnace slag.
- 4X135 MW power plant increasing the capacity to 840 Mega Watt (MW).

Jindal Steel and Power Ltd. has plans for expansion of its Raigarh plant to a capacity of 6.0 MTPA. It also has plans for two Greenfield projects in Orissa and Jharkhand with proposed capacity of 6.0 MTPA each, in the first phase.

JSPL expanding horizons

Jindal Steel & Power Limited is setting up a 10 MTPA Pellet Plant at Barbil, Orissa based on huge stocks of iron ore fines lying with various Iron Ore Mines in Orissa. The first module of 5 MTPA is undergoing trial runs since January, 2010. This project aims to conserve precious iron ore reserves of the country by converting unused fines into pellets for usage in DRI production.

The Pellet Plant would be using producer gas derived from coal for its energy requirement to keep its production cost contained and free from fluctuations of petroleum based fuels.

The Company has also commenced hot trials of its 0.6 MTPA Wire Rod Mill at Patratu, Jharkhand where work on 1.0 MTPA Bar Mill is progressing fast so as to commission this plant by October, 2010. Also the Company is setting up a 6 MTPA Steel Plant at Patratu.



ESSAR STEEL LTD. (ESL)

Essar Steel Ltd., the Indian company of Essar Steel Holdings Limited, is the largest steel producer in Western India, with a current capacity of 4.6 MTPA at Hazira, Gujarat, and plans to increase this to 8.5 MTPA. The Indian operations also include an 8 MTPA beneficiation plant at Bailadila, Chattisgarh, which has the world's largest slurry pipeline of 267 km to transport beneficiated iron slurry to the pellet plant, and an 8 MTPA pellet complex at Visakhapatnam. The Essar Steel complex at Hazira in Gujarat houses the world's largest gas-based single location sponge iron plant, with a capacity of 4.6 MTPA. The complex also houses the steel plant and the 1.4 MTPA cold rolling complex. The steel complex has a complete infrastructure setup, including a captive port, lime plant and oxygen plant.

Essar Steel utilises Hot Briquetted Iron-Direct Reduced Iron (HBI-DRI) technology supplied by Midrex Technology, USA along with four 150 tonne DC electric arc furnaces imported from Clecim, France. The Hazira unit of Essar Steel is equipped with 5.5 million tonne per annum (MTPA) hot briquetted iron plant, 4.6 MTPA electric arc furnace, 4.6 MTPA continuous caster, 3.6 MTPA hot strip mill and 1.4 MTPA cold rolling mill. During the year 2007-08, Essar was awarded costs ISO/TS 16949 and OHSAS 18000 certification.

The brownfield expansion project of Essar Steel, at its Hazira complex is currently at an advanced stage and the first phase (1.6 MTPA) is scheduled to be commissioned in October 2010.

ISPAT INDUSTRIES LTD.

Ispat Industries Ltd. (IIL) has set up one of the largest integrated steel plants in the private sector in India at Dolvi in Raigad district, Maharashtra, with a capacity to manufacture 3 million tones per annum of Hot Rolled Steel Coils (HRC). The Dolvi complex also boasts of an ultra modern blast furnace (set up by a group company Ispat Metallics India Limited) capable of producing 2 million tones per annum of hot metal/pig iron, 2 million tonne capacity sinter plant (newly commissioned) and a DRI plant with a capacity of 1.6 MTPA.

The integrated steel plant uses the Converter cum Electric Arc Furnace Route (CONARC process) for producing steel. In this project, IIL have uniquely combined the usage of hot metal and DRI (sponge iron) in the electric arc furnace for production of liquid steel for the first time in India. For casting and rolling of liquid steel, IIL has the state-of-the art technology called compact strip production (CSP) process, which has been installed for the first time in India and produces high quality and specifically very thin gauges of Hot Rolled Coil.

MONNET ISPAT & ENERGY LTD. (MIEL)

Monnet Ispat & Energy Limited (MIEL) is India's second largest sponge iron manufacturing company with an annual production of 1 million tonne per annum.Monnet manafactures and markets 1.6 million tonne per annum of sponge iron, ferro alloys, mild steel billets and rolled products from its integrated plants at Raipur and Raigarh, with dedicated

A view of Monet Ispat and Energy Limited's steel plant.



customers and distribution network throughout India. MIEL has plan to integrate the operation and expanding its steel capacities by taking up value-added segments like plates, Thermo Mechanically Treated (TMT) bars, wire rods and forging quality special steel etc.The company is presently operating ISO 9001-2000 certified plants at Raipur and Raigarh in Chattisgarh with production of finished steel and sponge iron.The company is in the advanced stage of capacity of expansion at Raigarh , with blast furnace, EAF, TMT/rebar mill and plate mill under installation along with sintering, palletization plant. The steel making capacity of the group will increase to 3 MTPA in 2010- 11. Greenfields units are coming up at Angul, orissa and Bokaro, Jharkhand, that will ramp up the steel making capacity to 5MTPA by 2012.

BHUSHAN POWER & STEEL LTD.

Bhushan Power & Steel Limited (BPSL), formerly Bhushan Limited (BL), is a closely held 36-year-old steel manufacturing and processing company. Presently, the company has five plants in Chandigarh and Derabassi, one plant in Kolkata and is now implementing an integrated steel plant at Sambalpur in Orissa in phases with an ultimate capacity of 2.8 MTPA.

The current configuration of the company at its Orissa plant is 1.0 MTPA sinter plant, 0.7 MTPA pig iron, 0.68 MTPA sponge iron, 0.45 MTPA coke oven and billet caster plant of 0.03 MTPA.

The company is adding 4 more kilns of 500 tonne per day each and enhancing the production of H.R. Coil. Further capacities for steel making are also being increased up to 2.8 million tonne for which the work is going on.

BHUSHAN STEEL LTD.

Bhushan Steel Limited (earlier known as Bhushan Steel and Strips Limited) - "Bhushan Steel" or "BSL", was established in 1989, and is engaged in the business of steel manufacturing, steel processing and allied activities. It is the market leader in the secondary steel sector for cold rolled (CR) products and the third largest player in the CR segment in India.

CSP (HR Coil) Mill Stand of Bhushan Steel Limited.

Currently, the company is implementing the integrated steel plant with a capacity of 3 MTPA, of which production of 1.90 MTPA of Hot Rolled (HR) coils shall commence from the September 2009 quarter. The company is enhancing the capacity of the Orissa project from 1.90 MTPA of HR coils to 3.60 MTPA and total steel making from 3.0 MTPA to 6.0 MTPA.

The project has been undertaken to ensure optimum utilisation of infrastructure and resources at the existing plant and utilise the full capacity of existing HR mill which has the inherent capacity to produce HR coils up to 3.60 MTPA.

Electric Arc Furnace industry

Presently, there are 39 Electric Arc Furnace (EAF) based steel plants working in the country with an aggregate capacity of 17.99 million tonne per annum. Apart from the working units there is 1 unit, which is closed. Production of Ingots/ Concast Billets by EAF units, which have been reporting their production to Joint Plant Committee, during 2008-09 was 14.15 million tonne as compared to 10.80 million tonne during 2007-08 - registering a growth of 31%. This sector continued to be under constraint of rising cost of inputs, increasing power tariffs, shortage of power and resource crunch.



INDUCTION FURNACE INDUSTRY (Source: JPC)

During 2008-09, it is estimated that 1074 units with a capacity of 22.18 million tonne were in operation. The total production of induction furnace units registered a growth of 6.62% during 2008-09, producing 18.05 million tonne against a production of 16.93 million tonne in 2007-08, as reported to the Joint Plant Committee (JPC).

Performance of EAF-based steel plants

- **Status**

(in million tonne)

	Number	Capacity
Commissioned units	39	18.041
Closed units	1	0.05
Working units	38	17.991

- **Production**

The production of electric arc furnace units as reported to the Joint Plant Committee is as under:

(in million tonne)

Category	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10* (April-December 2009)
Mild steel	4.37	4.31	5.06	6.13	9.03	7.41
Medium/high carbon steel	1.35	1.50	1.76	2.76	2.68	2.2
Alloy steel	0.95	1.53	1.80	1.02	1.05	0.86
Stainless steel	0.84	0.92	1.08	0.83	0.75	0.62
Others	0.05	0.04	0.05	0.06	0.64	0.53
Total reported	7.56	8.30	9.75	10.67	14.15	11.62
Total estimated	0.28	0.13	0.13	0.13	-	-
Grand total	**7.84**	**8.43**	**9.88**	**10.80**	**14.15**	**11.62**

**Provisional*

Hot rolled long products unit (2008-09)

- **Status**

(in million tonne)

	Number	Capacity
Commissioned units	2288	35.19
Closed units	568	4.21
Working units	1720	30.98



- **Production**

Production of hot rolled long product manufacturing units as reported to the Joint Plant Committee is as under:

(in million tonne)

Category	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10* (April-December 2009)
Bars/rods (incl. squares)	3.98	4.97	5.70	13.33	15.46	11.94
Wire rods	0.88	0.84	0.96	1.25	1.48	1.14
Structural	1.21	1.62	1.85	1.32	4.64	3.59
Hoops	0.03	0.03	0.05	0.08	0.73	0.56
Special section	0.17	0.22	0.26	0.35	0.17	0.14
Patra/others	0.59	1.32	1.51	0.35	0.63	0.49
Total reported	6.86	9.00	10.33	17.68	20.55	15.94
Total estimated	4.68	4.04	9.50	3.96	2.56	1.92
Grand total	**11.54**	**13.04**	**19.83**	**21.64**	**23.11**	**17.86**

**Provisional*

Steel wire drawing units

- **Status (2008-09)**

(in million tonne)

	Number	Capacity
Total units	100	1.44
Closed units	65	0.73
Working units	35	0.71

- **Production**

Production of steel wire drawing units, as reported to the Joint Plant Committee is as follows:

(in million tonne)

Category	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10* (April-December 2009)
Mild steel	0.16	0.08	0.07	0.13	0.16	0.12
Medium/ high carbon Steel	0.17	0.20	0.18	0.17	0.19	0.15
Alloy steel	0.08	0.04	0.04	0.04	0.07	0.05
Stainless steel	0.01	-	-	-	-	-
Others	0.04	0.17	0.14	0.12	0.17	0.14
Total reported	0.39	0.49	0.43	0.46	0.47	0.37
Total estimated	0.03	0.01	0.11	0.10	0.12	0.09
Grand total	**0.42**	**0.50**	**0.54**	**0.56**	**0.59**	**0.46**

**Provisional*



Hot rolled steel sheets/strips/plates units

- **Status (2008-09)**

(in million tonne)

	Number	Capacity
Commissioned units	12	14.385
Closed units	Nil	Nil
Working units	12	14.385

- **Production**

Production of hot rolled steel sheets/strips, as reported to the Joint Plant Committee is as follows:

(in million tonne)

Category	2005-06	2006-07	2007-08	2008-09	2009-10* (April-December 2009)
HR steel sheets/strips	7.45	8.56	9.43	9.48	7.32
Plates	0.65	0.89	1.37	1.51	1.17
Total reported	**8.10**	**9.45**	**10.80**	**10.99**	**8.49**

**Provisional*

Cold rolled steel sheets/strips units

- **Status (2008-09)**

(in million tonne)

	Number	Capacity
Total units	65	9.55
Closed units	Nil	Nil
Working units	65	9.55

- **Production**

Production of cold rolled steel sheets/strips units, as reported to the Joint Plant Committee is as follows:

(in million tonne)

Category	2005-06	2006-07	2007-08	2008-09	2009-10* (April-December 2009)
Mild steel	4.87	5.48	5.26	5.53	4.28
Medium carbon steel	-	-	-	0.07	0.05
Stainless steel	0.17	0.20	0.30	0.28	0.22
Others	0.09	0.08	0.08	0.42	0.32
Total reported	5.13	5.76	5.64	5.80	4.44
Total estimated	0.03	0.05	0.30	0.50	0.43
Grand total	**5.16**	**5.81**	**5.94**	**6.30**	**4.87**

**Provisional*



Galvanised - Plain and Corrugated (GP/GC), PVC/Vinyl coated sheets/strips units

- **Status (2008-09)**

(in million tonne)

	Number	Capacity
Commissioned units	20	5.06
Closed units	Nil	Nil
Working units	20	5.06

- **Production**

Production of GP/GC sheets/strips units, as reported to the Joint Plant Committee:

(in million tonne)

Category	2005-06	2006-07	2007-08	2008-09	2009-10* (April-December 2009)
GP/GC sheets/strips (incl. colour coated)	3.22	3.58	3.65	3.84	2.97
Total reported	**3.22**	**3.58**	**3.65**	**3.84**	**2.97**

**Provisional*

Tin plate units

- **Status (2008-09)**

(in million tonne)

	Number	Capacity
Commissioned units	3	0.21
Closed units	2	0.11
Working units	1	0.10

- **Production** Production of tin plate units, during the last few years is as under:

(in million tonne)

Category	2005-06	2006-07	2007-08	2008-09	2009-10* (April-December 2009)
Oil can size	0.15	0.16	0.17	0.19	0.15
Nonoil can size	-	-	-	-	-
Total reported	**0.15**	**0.16**	**0.17**	**0.19**	**0.15**

**Provisional*



CHAPTER VI

RESEARCH AND DEVELOPMENT

Major Research and Development (R&D) in Indian iron & steel sector over the years has remained confined to a few steel companies like Steel Authority of India Ltd. (SAIL) and TATA Steel Ltd. However, gradually, it has been picking up in newly commissioned main/major steel plants like Rashtriya Ispat Nigam Ltd (RINL), JSW Steel Ltd., Essar Steel Ltd., Ispat Industries Ltd. etc. Most of the R&D works in these plants however, relate to incremental research addressing the day-to-day problems of the steel plants or the industry, and investment in large-scale R&D work for development of path-breaking innovative technologies has been limited. Naturally, R&D investment in steel sector as a whole remains very meager and the actual investment in different steel companies as percentage of their turnover vary in the range of 0.15% to 0.25% which is roughly 1/10th when compared with known steel plants abroad.

Highlights of R&D initiatives by the Ministry of Steel :

To encourage and step up R&D investment in the steel sector, Government of India, Ministry of Steel has been extending financial assistance from the interest proceeds of Steel Development Fund (SDF). The empowered committee constituted under the chairmanship of Secretary (Steel) in the Ministry of Steel for this purpose has approved 64 R&D projects costing Rs. 422 crore, of which SDF contribution is Rs. 177 crore. So far approx. Rs. 120 crore has been disbursed and 31 R&D projects completed, and results in several cases implemented yielding benefits to the industry. During the year 2008-09, a sum of Rs 7.27 crore and during 2009-10 (upto 31st January 2010), a sum of Rs. 8.47 have been disbursed from SDF for different new and on-going R&D projects.

In addition to the above, Planning Commission, Government of India, has approved a new scheme viz. "Scheme for Promotion of R&D in Iron and Steel Sector" for which an amount of Rs. 118 crore has been allocated for the 11th Five Year Plan period.

Managing Director, Bhilai Steel Plant (SAIL), Shri R. Ramaraju inaugurating the 220KV Switch Yard.



The scheme was formally approved for implementation by Finance Minister on January 23, 2009 for implementation from April 1, 2009. The scheme focus as on the following areas:

- Development of innovative/path-breaking technologies utilising Indian iron ore fines and non-coking coal.
- Improvement of quality of steel produced through induction furnace route.
- Beneficiation of raw materials like iron ore, coal etc. and agglomeration (e.g. Pelletisation).

Budgetary provision of Rs. 35 crore has been allocated for the scheme in 2010-11 (BE).

In consultation with a Panel of Experts 7 nos. of R&D proposals have been short listed for consideration by the Project Approval and Monitoring Committee. The first meeting of PAMC was held on 11th February 2010 when 4 projects have been approved. Follow-up action towards release of funds is being taken by the Ministry.

Highlights of R&D in Iron and Steel Associate Companies :

STEEL AUTHORITY OF INDIA LTD. (SAIL)

Research & Development Centre of the Company has undertaken 111 R&D projects in the current year 2009-10, out of which 77 projects are to be completed during the year. These projects provide technological inputs to SAIL plants / units with thrust on cost reduction, value addition, quality improvement and development of new products.

The Centre has filed 20 patents and 25 copyrights during April to December, 2009. As many as 40 technical papers were published and 66 papers were presented. In addition, RDCIS undertook contract research work and provided significant consultancy services and know-how to organisations outside SAIL.

The Centre has bagged 10 prestigious awards including 7 awards pertaining to National Metallurgists' Day Celebration, 2009.

Automated Steel Production at SAIL ensures Top Quality Steel products.



R&D Efforts and Achievements

Some of the significant achievements in different technology areas during April to December, 2009 are summarised below:

New Products Developed

- **Development and Commercialisation of Identified Special Steel Products at Rourkela Steel Plant**

  The difficult-to-cast medium carbon grades were developed by optimizing casting and hot rolling parameters through SMS-I route. The total tonnage of all three grades of medium carbon steel (MC 40, MC 55 and C 30 grade of higher Mn) dispatched was 16891 tonne against the target of 10000 tonne, facilitating extra revenue generation.

- **Development of High Strength (YS 640 Mpa Min) Roof Bolt Quality TMT Bars at IISCO Steel Plant, Burnpur**

  Stringent quality requirement in terms of mechanical properties and rib pattern for roof bolt grade TMT bars as per BS 7861 (YS 640 MPa min and 18% EL min.) has been met successfully at ISP in 22mm size for the first time in SAIL. About 1100 T material could be processed successfully with ISP and DSP billets.

Experimentation in Hot Dip Process Simulator at R&D Centre for Iron Steel (SAIL) for ensuring best quality products.

- **API X-65 grade ERW pipes as per PSL 2 specification at Rourkela Steel Plant**

  Feasibility of producing API X-65 pipes of PSL-2 specification in the recently modernized ERW pipe plant was established through successful processing of one 150 T heat of API X-65 steel into 14" dia pipes; properties of all the pipes conformed to API specification.

Expenditure on R&D during the last three years

(Rs. in crore)

	SAIL's turnover	R&D expenditure			
Year		Capital	Revenue	Total	% of turnover
2007-08	45555	2.24	99.62	101.86	0.22
2008-09	48681	5.72	112.48	118.20	0.24
2009-10 (April-December)	30929	3.13	62.14	65.27	0.21

Cost Competitiveness/Quality Improvement

- **Increase in BOF lining life at Durgapur Steel Plant**

  A record lining life of 6249 heats in converter # 1 has been achieved through identification of the critical operating parameters affecting lining life and practising the recommended Standard Operating Practices (SOPs) for steel making, refractory repair, slag splashing, MgO super saturation by use of calcined dolomite and avg. tap temperature of 1680°C.

- **Improvement in Performance of Lime Kiln at Durgapur Steel Plant**

  Lime production was raised to 300 t/day by optimizing kiln parameters and especially by maintaining the burner temperature of 1260 ± 100°C and controlling of air flow. Quality of lime was also improved. Preheating schedule after repair was reduced to 10 days from earlier schedule of 24 days resulting in increased kiln availability.



- **Improving the Thermal Performance of Reheating Furnace of Hot Strip Mill at IISCO Steel Plant, Burnpur**
  A number of modifications introduced in both the reheating furnaces of Heavy Structural Mill at ISP have resulted in reducing fuel consumption. The specific fuel consumption has come down from 0.608 to 0.436 Gcal/tcw in Nov '09. The yield has also increased from 90.94% to 91.43% in Nov '09.
- **Improvement of roll life by modified cooling system at Roughing stands of Hot Strip Mill at Bokaro Steel Plant**
  A modified roll cooling system was designed and commissioned at the Roughing Stands (R1 to R5) of Hot Strip Mill (HSM) at BSL. It has significantly reduced the fire-cracks formation on the roll thereby roll grinding off-take by 25~30%. The specific roll consumption also reduced by 30-35% (from 0.0331kg/t to 0.0226kg/t in R1 and from 0.164 to 0.104 kg/t in R2 to R5). There is also improvement in productivity, shape and quality of hot strip.
- **Automation of Cooling Bed # 1 and 2 and Bar Shears at Merchant Mill at Durgapur Steel Plant**
  Newly introduced PLC system and soft logic in Merchant Mill at DSP has facilitated specific fault diagnosis leading to its speedy rectification. Reduction in mill delays due to malfunctioning of earth roll detector for kick off operation has been achieved and improvement in mill availability and reduction in cobble generation in cooling bed area is also expected.

RASHTRIYA ISPAT NIGAM LTD. (RINL)

At RINL, R&D initiatives are directed towards meeting the challenges and providing technical inputs to the plant. The focus for the R&D efforts is to meet the present and future requirements of the plant based on thrust areas like process improvement, waste management, cost reduction, and environment protection.

Research activities undertaken during 2009-10

Significant achievements in the fields of R&D during the year are summarized below:

Process improvement

- Pilot oven tests were conducted to study the suitability of usage of various coal blends in coke making.
- A project undertaken to study the effect of iron ore micro fines in sinter making was completed. In lab scale, sintering process was found to be supporting production of sinter with 50% of micro fines in Iron ore.
- A project on "Technical Analysis and Optimization of Continuous Casting at RINL using existing plant facilities" was completed.
- A project on "Water modeling of Continuous Casting Tundish for improvement of Yield and Metallurgical performance" was taken up and completed successfully. With the incorporation of the new design, the skull formation is found to be reduced by approx. 50%.
- A project was undertaken to analyze the converter blowing lance tip failure and suitable remedial actions were suggested.

Waste management

- To improve the recycling of LD slag, a project was taken up on "Microbial removal of phosphorous from LD Slag".
- To recycle various metallurgical wastes generated in the plant, a project on briquetting of metallurgical waste was undertaken. Production of Briquette for industrial trial is in progress.
- To improve the recycling of Gas Cleaning Plant (GCP) sludge of converter, a project was undertaken on briquetting of GCP sludge. The Project was successfully completed by making the Briquettes from GCP Sludge and utilizing them in Converter as a replacement of sized iron ore.

Cost reduction

- A project taken up to study the effect of aluminium content in EQ grade wire rod coils with the help of Welding Research Institute, Trichy was completed. The issue of revision of BIS-2879 specification has been taken up with BIS.
- A project on development of nano coatings on refractories has been taken up for improving the refractory life of Laddle, Convertor etc. Identification and preparation of nano size refractory material for coating applications is in progress.



Environment protection

- A project is undertaken to control the noise levels in mills and thermal power plant. Mapping of noise levels has been completed and feasibility report prepared.
- A project undertaken on sequestration of CO_2 from flue gases is under progress. Suitable algae, which can grow by absorbing CO_2 are being identified. This is a three year project.

Development of new grades/products

- Keeping in view the market demand and to cater to specific customer requirement, the following new grades were developed:
  - 'CO_2 Welding' grade has been developed for making welding electrodes.
  - 'Fe 500D' grade has been developed to cater to Construction steel requirement for Seismic Zones as Earth quake resistant steel.

Academic collaboration/interactions

Joint research projects

RINL has Collaboration with various premier educational institutes/research laboratories for Joint Research Initiatives. The list of the research partners includes Indian Institute of Technology, Chennai, Indian Institute of Science, Bangalore, National Chemical Laboratories, Pune, IMMT Bhubaneshwar, Andhra University, Visakhapatnam, Jadavpur University, Kolkata, Indian Institute of Technology, Kanpur etc.

Interactions with educational institutes/laboratories

To improve knowledge sharing between industry and institutes, a number of eminent professors/scientists visited RINL during the year. The visits were followed by technical discussions in various areas related to plant process parameters, technological developments etc.

Furnace Charging Area of Visakhapatnam Steel Plant of RINL.



R&D Expenditure

R& D Expenditure as a percentage of Turnover for the last three years is indicated in the following table:

(Rs. in crore)

Year	Turnover	R&D expenditure	R&D expenditure % of turnover
2007-08	10433	17.93	0.17
2008-09	10411	17.35	0.16
2009-10 * (till November 2009)	6123	10.75	0.18

** Budget for 2009-10 is Rs. 12 Crore*

NMDC LTD.

The Major Assignments taken up by R&D Centre of NMDC during the year 2009-10 are as follows:

- Utilization of low grade iron ore i.e. Banded Hematite Jasper (BHJ) and Banded Hematite Quartzite (BHQ).
- Utilization of slimes /Fines for making pellets /Sinter.
- Utilization of Kimberlite waste for preparation of Sodium Silicate, Precipitated Silica and Zeolite -"A".
- With the technical collaboration between MISA (Moscow Institute of Steel and Alloys) and NMDC, facility is being created for preparation of Nano Crystalline Iron Powder from Blue Dust. Equipment have been procured. Civil works to house equipment are completed.
- Pilot Plant of 300 Tonne Per Annum capacity for producing Carbon Free Sponge Iron Powder has been constructed and as per project proposal, all the equipment have been erected and commissioned in the month of December 2009. Trail run to see the smooth function of all equipment is completed. PG test is under progress.
- Apart from the works related to investigation/development/production projects of NMDC, various projects sponsored by other companies/PSUs are also being regularly taken up. For example:
  - Beneficiation of iron ore fines from Barsua Mines and iron ore from Meghahatuburu Mines of Steel Authority of India Limited (SAIL).
  - Study of Coal Flow problems in Thermal Power plant of Visakhapatnam Steel Plant of RINL
  - Pelletization studies for the iron sample supplied by M/s Ispat Industries Ltd, Mumbai.

NMDC Turnover and R&D expenditure for the last 3 years:

Year	Turnover (Rs. in crore)	Expenditure on R&D (Rs. in crore)	R&D Expenditure as % of turnover
2007-08	5711.31	10.02	0.18
2008-09	7564.03	20.61	0.27
2009-10 (Upto December 2009)	4255.76	8.32	0.19

MANGANESE ORE (INDIA) LTD. (MOIL)

MOIL is engaged in exploration, exploitation, processing and marketing of Manganese ore. It operates both underground and open cast mines. The major portion of total production of Manganese ore comes from Underground Mines.

Thrust areas for the R & D activities

The thrust areas for the R & D efforts in MOIL are directed towards meeting the challenges of safe and cost effective mining practices in Underground mines with increasing depth. The thrust is also being given in the R & D activities for the development of beneficiation and upgradation techniques in addition to exploration of the new deposits. The main areas where the R&D efforts of the company have been directed are as follows:



- Development of safer and cost effective mining method.
- Development of new support system in underground workings and improving the existing supporting methods and practice.
- Introduction of controlled blasting practices for eco friendly mining.
- Sand stowing for filling underground voids fully with effective compactness.
- Technology development for production of Manganese based value added product.
- Development of cost effective beneficiation technique for upgradation of minerals.
- Technical upgradation and automation for activities for productivity enhancement and safety improvement.
- Exploration of new deposits.

Technology Upgradation - Key Areas

Technologies developed in-house and fully adopted

- Pre-mining ground re-enforcement by cable bolting in Underground Mines replacing the earlier post mining support.
- Introduction of hydraulic sand stowing in the Underground Mines, replacing the earlier system of manual filling.
- Introduction of post pillar methods of mining to reduce the consumption of timber and the cost of supports in underground.
- Introduction of Side Discharge Loader (SDL) for mechanical handling of ore in stopes.
- Use of steel for construction of ore passes and manways in underground replacing the Reinforced Cement Concrete (RCC) ore passes and man ways.
- Online Motion Weigh Bridge at mines of MOIL are presently operating in electro-mechanical and digital modes. The online in motion weigh bridges have the capacity of 120 tonne.

R & D program for continuous improvement in the existing practices

- Diamond drilling to locate new manganese and to prove further reserves in the existing areas.
- Pit slope stability studies in the open cast mines and optimisation of slope angles to reduce the development cost.
- Experimentation with mechanical handling of Run Of Mine (ROM) in stops at Balaghat.
- Blasting studies in the underground as well as open cast mines for optimization of blasting parameters for reduction in explosive consumption and blasting cost with an improvement of fragmentation of the blasted materials.
- Beneficiation studies for upgradation of Dongri Buzurg and Balaghat ROM.
- Design of new roof and ground system in underground having weak and soft rock in hand wall and footwall. This will help in improving safety and productivity of mine by providing the scope of mechanization in the stop.
- Introduction of Electrical Winch, 0.5 Million Tonne (MT) capacity in under ground mine

R & D Expenditures:

The following R & D expenditures have been incurred during the last three years.

(Rs. in crore)

Year	Turnover	R&D expenditure	R&D expenditure As % of Turnover
2007-08	973.36	2.79	0.28
2008-09	1284.84	3.33	0.26
2009-10* (Upto December 2009)	647.15	1.80	0.28

**Provisional*

MECON LTD.

MECON has an in-house R&D Lab since 1985-86 duly recognised by the Department of Scientific and Industrial Research, Government of India wherein the thrust on R&D activities has been design and development of engineering technologies and equipment in various sectors including iron and steel. Recently, MECON has successfully designed,



developed and demonstrated the Infrared camera based 'Slag Detection system' for BOF converter in RSP, SAIL, Rourkela.

R&D projects completed during 2008-09

- Development of design and engineering for high efficiency, high temperature, and top fired stoves, funded by Steel Development Fund (SDF), Ministry of Steel. Following successful development, commercialisation efforts are on for implementation of such stoves at IDCOL, Kalinga Iron Works Ltd., Orissa.
- Development of Coke Dry Cooling Technology (CDCT) for non-recovery of coke ovens, funded by SDF, Ministry of Steel.

On-going projects

- Development and Implementation of slag detection system for continuous caster, funded by SDF, Ministry of Steel.
- Development of continuous NOx monitoring system, funded by SDF, Ministry of Steel.

Patent under process

- Patent application filed for R&D project entitled "High Efficiency, High Temperature, Top Fired Stoves".

Excellence and awards

MECON'S excellence in R&D activities are also recognised through various awards bestowed to the R&D scientists such as Young Scientist Award of Excellence, Best Paper Award etc. MECON has more than 32 patents and 105 technical papers on R&D published in national and international journals. MECON'S R&D engineers are also the regular referees of various international journals.

SPONGE IRON INDIA LTD. (SIIL)

The Company has been putting all its efforts for indigenisation of all the equipment, which were earlier being imported, as a result the Company has achieved 100% indigenisation of all equipment and spares.

Year wise expenditure on R & D by SIIL

Year	Turnover (Rs. in lakh)	R&D Expenditure (Rs. in lakh)	R&D Expenditure (as % of turnover)
2007-08	5,573	9.88	0.18
2008-09	4,080	13.34	0.33
2009-10* (April-December 2009)	3,389	7.50	0.22

**Provisional*

KIOCL LTD.

The main objective of R & D activities at KIOCL is emphasized at quality improvement through process development/modifications to suit the requirement of pellet plant to operate with Hematite ore.

Achievements

R & D (Process Development/ Modification):

- Modifications carried out in the Agitator Blades as a result of experiments and detailed study has resulted in considerable improvement in the filter feed density of more than 2 gm/cc.

Wet grinding environment friendly technology adopted for the first time in KIOCL for processing Hematite Grade Ore from the Bellary Hospet Region.



A view of Process Flow Computer Control Room of KIOCL.

- Inclusion of 06 nos. of Derrick Screens in a single ball mill line has resulted in improvement of screening efficiency and throughput to the mill.
- Introduction of Variable feed drive in the thickener under flow pumps has resulted in controlled volume feed to Agitator and reduction/prevention of slime recirculation.
- Development of infrastructure at Mangalore facilities for receipt, unloading, handling, blending, storage and grinding of hematite ore sourced from different agencies involving the following works:
  - Construction of railway siding adjacent to pig iron complex of KIOCL for receiving the iron ore arriving in railway wagons.
  - Creation of bulk material handling facility for unloading, storage and conveying the iron ore fines from the railway siding to the pellet plant storage sheds.
- Detailed Project Report is being prepared for installation of coke oven plant at Mangalore. Coke oven plant will consists of coke preparation plant , coke making plant, coke sorting plant with necessary auxiliary facilities like steam and power generation unit, cooling and make up water system, instrumentation/ control system and services.

R&D Expenditure and feasibility studies

(Rs. in crore)

Year	Turnover	R&D expenditure	R&D expenditure % of turnover
2007-08	1530.11	1.41	0.09
2008-09	1228.98	0.97	0.08
2009-10 (upto December 2009)	502.61	1.09	0.22



TATA STEEL LTD.

- Hot rolled Tata 800 strip [YS: 700 MPa (Min), UTS: 830 MPa (Min), %EL : 20 (Min), Hole Expansion: 100 Minimum, Fatigue strength: 430 MPa, ITT : -40 degee C] commercially produced at Tata Steel for Long Member (Chassis) of new generation heavy truck and other vehicles.
- Hot rolled Tata 600 strip [YS: 520 MPa (Min), UTS: 615 MPa (Min), %EL : 24 (Min), Hole Expansion: 120 (Min), Fatigue Strength: 310 MPa, ITT: below -40 deg C] commercialized for wheel rim and disc application.
- R&D and Tube division's joint work on the development of cost effective alternative to our FM tubes has been successfully implemented in producing equivalent ERW tubes suitable for plumbing application.
- High strength IF steel (UTS : 350 MPa) with r bar value of >1.9 developed
- LCF and HCF fatigue testing conducted on E34 and E46 hot rolled steel sheets. Data provided to Tata Motors design team.
- Welding process parameters and welding conditions have been developed for cage welding at Nat Steel. Recommendations have been made. Site trials being planned.
- Fire resistant steel chemistry for tubes has been designed. The steel is expected to sustain YS >70% at 500 deg. C.
- New process is developed for recovery of Ni, Cr and Fe values from nickeliferrous chromite ore burden of Sukinda Chromite mines. The process is demonstrated in lab scale Rotary Hearth Furnace and Fe nuggets with 1.5 % Ni and 7 - 10 % Cr were successfully produced by this new process.
- The large-scale trials of new sponge chrome process were demonstrated using industrial tunnel kiln facility. The use of sponge chrome in production of ferrochrome will reduce the power and coke consumption by 20% and 30% respectively.
- New briquetting process is developed for agglomeration of ferro-alloys fines for their application in steel making with no contamination of liquid steel. The validation trials of product briquettes of FeMn fines were carried out in steel making shop at Jamshedpur.
- A process has been developed for beneficiation and use of Jhama coal (heat affected coal of Jharia coalfield) for coke making application.
- Eco-friendly nano-hybrid silica and titania sol-gel coatings developed in lab scale for both Galvanised (GI) and Cold Rolled and Closed Annealed (CRCA) steel sheets with superior corrosion resistance, formability and other functional properties such as hydro-phoebicity, antibacterial, anti-fingerprint and scratch resistance. Up-scaling of the coating technology to pilot scale level is in progress.
- A novel low cost arsenic removal system developed by using steel industry waste fines.
- A single dip Zn-Al coating process for wire products has been developed in lab scale and is being implemented in the plant.

R&D expenditure

Financial Year	Expenditure as % of turnover
2006-07	0.24
2007-08	0.21
2008-09	0.20

JSW STEEL LTD.

Highlights of R&D in 2009-10

- Optimization of the coking time for varying quality of coal blends to improve production at non-recovery coke ovens by 5%.
- Optimization of Sintering Parameters to reduce sinter return fines from 30 % to < 20 %.
- Study on influence of FeO on sinter characteristics and its optimization.
- Improvement in Pellet Quality by improving pellet CCS > 220 kg/p and RDI < 11.0 %.



- Study to replace inorganic binder with organic binder for improvement in pellet quality.
- Development of Raceway Parameters to Improve and Control the Corex Process.
- Development of a mathematical model for estimating hearth wear in Corex. Already in use.
- Study on Tap Hole Clay Mass to identify suitable tap hole clay mass for iron making units to achieve better tap hole length and casting practices.
- Increasing BF-2 productivity from 2.1 to 2.4 tonne per cubic meter per day (t/m3/d) through optimization of burden distribution.
- Reduction in Fuel Rate at BF-1 and BF-2 by 10 kg/thm. Already achieved.
- Development of Model for Locating Crack Initiation Point in Slabs at JSW Casters. Already in use.
- Minimizing Inclusions in Ladle Change over Slabs through water modeling to reduce emulsification during ladle changeover.
- Recycling of various SMS Slags in Cement and Pellet Making to estimate the maximum permissible limits of slag addition in cement and pellet making.
- Development of a model to predict optimum Finishing and Coiling Temperatures for a typical HR Product by optimization of Thermal Regime in HSM.
- Study of thermal profile and wear pattern of rolls in HSM during rolling and improve the critical factors.
- Study on Coil Break Defect in Cold Rolling Mill to minimize the coil break defects.
- Development of new process to produce DRI from green pellets, thereby reducing CO_2 generation.
- Development of a novel technique for utilization of steel plant wastes to produce high quality DRI for steelmaking as a replacement of steel scrap.

R&D Expenditure

(Rs. in crore)

Year	Total R&D expenditure	Annual Turnover	Percentage
2007-08	14.36	11420	0.13
2008-09	12.38	14001	0.09
2009-10 (April-September)	2.40	6944	0.034

ESSAR STEEL LTD.

Essar Steel has recently set up a dedicated laboratory with qualified engineers/experts for research & development to address the problems/issues concerning their production processes and products with particular emphasis on new product development. During the year, the company is reported to have developed 31 new steel grades/products for stringent applications including high strength CRCA steel sheet and high strength dent resistant IF steel for automotive applications, high strength galvanised sheets for structural applications, stringent quality API grade steel for line pipes, ship building quality plates for hull structural application and for warship application for Indian Navy etc. Highlights of some of the specific R&D activities taken up during the year and benefits derived thereof are given below:

- Development of SPRC-35/40 CRCA steel for automobile application.
- High strength IF CRCA steel as per SPRC-45 for auto application.
- High strength steel plates equivalent to DOMEX 650 steel for automobile chassis application.
- In-house development of mathematical model for HSM-ROT temperature prediction and Micro-structure evolution model.
- Development of Dual phase steel- DP-600 (F+M) for automobile application.
- Development of API 5L X-80 grade steel for line pipe application with HTP concept.
- Development of API 5L X-65 line pipe steel for sour service application.
- Development of high strength plates as per caterpillar spec. 1E 1242, as import substitute.
- Cost reduction w.r.t. ferro-alloys consumption, the approximate saving amounts to Rs. 22 crore (without affecting the quality parameters).



- Coal trial taken in modules to study the effects in reducing natural gas consumption.
- LPG extraction system commissioned leading to energy conservation.
- Commissioned the cold DRI pilot facility in module 3.

MUKAND LTD.

Research and Development activities completed during April-September 09

- Research activities carried our for manufacture of Titanium/ Niobium stabilised stainless steel and implemented for commercial production, thus helping in important sbustitution.
- Research activities towards improvement of fatigue life of Chrome-Silicon automobile suspension springs by reduction in inclusion size and volume fraction through modifications in melting and refining process standards.
- Metallurgical research activities of microalloyed steels continued and new grades for auto applications identified; effect of minor alloying additions on the existing grades being studied.
- Study on Machinability of low carbon leaded resulphurised steel through use of Taguchi Method completed by joint participation with National Institute of Technology, Karnataka, and implemented the same at Plant Level.
- Coordination with outside laboratories for studies related to inclusion characterization continued.
- Chemistry design and process modeling for commercial production of Stainless Steel electrode grades referred in American Welding Society (AWS) 5.9 completed. This development has led to import substituion. Grades ER 309LMo and ER 310 under study for development.
- All testing labs of Mukand accredited with NABL certification.
- Metallurgical studies related to medium carbon leaded steel for automobile application in Quench and Tempered condition done and implemented for plant level operation.
- ER70S6 – Zircon bearing, high Silicon and high Aluminium electrode grade susccessfully developed as an import substitute.
- Studies related to rolling of Duplex Stainless Steels done to meet wider section and product mix.
- Studies related to online Quenching of austenitic stainless steels, avoiding post rolling heat treatment for higher sections done. To extend on a larger quantity and achieve energy conservation.
- High carbon matenstic stainless steel developed with Carbon 0.35% for engineering applications.
- Cost reduction: Cooling characteristics of Cr-Si spring steel studied to identify scope for removal of post rolling heat treatment.
- Surface quality improvement of low interstitial ferritic stainless through control of interstitial elements and process parameters during continuous casting.
- Direct pumping of water from Tungbhadra Dam to Plant Reservoir through break pressure tank.

R&D Expenditure

	2009-10 (Provisional) Rs. in '000	2008-09 Rs. in '000	2007-08 Rs. in '000
a) Capital	5000	4331	8414
b) Recuring	5800	6182	5684
Total R&D expenditure as % of total Turnover	0.06	0.05	0.07

To reduce fuel oil consumption:

- Installation of micro valves in burners of Ladle Pre-heating station to optimize oil flow.
- Ceremic coating on inner side of Billet Reheating Furnaces for Bar mill, Blooming mill and Wire rod mill.
- Auto temperature controller in soaking zones of Billet Reheating Furnaces.
- Installation of low pressure burners at soaking zones.
- Use of Alfa solution for equipment cleaning instead of Diesel.

Following QMS certifications were obtained during the year:

- ISO 9001: 2000 (re-certification).



- TS 16949: 2002(E).
- TUV ADW0: Merkblatt for stainless steel.
- Pressure Equipment Directive PED/97/23/EC for stainless steel.

NEELACHAL ISPAT NIGAM LTD. (NINL)

The R&D activities carried out in NINL are listed below:

- One number Coke oven gas based Heat Recovery Steam Generator (HRSG) is under commissioning. Commissioning activities started on 21.12.2009. The capacity of HRSG is 45 t /hr of steam generation. It utilizes the heat available in exhaust gas of Gas Turbo Generator (GTG) which is around 5000ºC.
- Spent Solar oil at the Gas Cleaning Plant (GSP) of Coke oven and Power Plant is either sent for regeneration or sold to interested buyers. Since solar oil has high calorific value and density of almost equal to LDO, blending of solar oil with LDO for firing in boilers was experimented and found successful. Spent solar oil and LDO is blended in the boilers for firing.
- Quality Control Lab has started a laboratory trial to treat the BOD water effluent. In the trial, polluted water is passed through coke breeze layer of size (1- 3 mm). The coke after absorption get exhausted which is regenerated using LP steam.

ISPAT INDUSTRIES LTD.

New Processes/Process Improvement

The following projects have been completed in the respective areas:

Hot Strip Mill (HSM):

- Improvement in Mill Automation and laminar cooling in collaboration with SMS Demag AG
- PPMS - Production planning Management System developed in collaboration with POSDATA
- Increasing Metallurgical length in Caster 1
- Increase in slab thickness to 68 mm in Caster 1 and 70mm in Caster 2
- Redesign and in-house modification of kiln and bag filter to enhance lime productivity in LCP-1

RMHS:

- Upgradation in weighing system by installing SCHENCK-make Close Circuit TV, Public Address system etc.

Blast Furnace:

- Collaboration with M/s Danieli Corus and Siemens VAI for technological upgradations such as:
  - Proportional control for Mud gun plugging
  - MCC-01 Conveyor Pull cord health indication system
  - Life expectancy analysis for T-5 Blower Motor (14.5 MW)
  - Retrofitting of 400KW CAF motor by designing and preparing adopter plate.
  - Stock House feeding conveyor interrogation DCS power supply (24V DC) shifting from field to MCC.
  - Improved Tuyere stocks design and BF pressure measuring system.
  - Introduction of Pulverized Coal Injection and Oxy coal Injection System
  - SGP Crane No. 1and2 operation through Radio Remote Control System
  - Installation of BLT VVF Drive for tilting chute for Burden distribution and ceramic cup for Blast Furnace hearth life enhancement

Sponge Iron Plant:

- Desulphuriser Unit installation to remove the sulphur content in natural gas
- Installation of Double Bustle Ports for better utilization of reducing gas and Thin wall refractory to increase the reduction zone volume to enhance the productivity
- Fixing of Oval Shape top gas duct to increase the reduction zone volume to enhance the productivity



- Process gas compressor balancing valve fixing to optimize process gas flow
- Furnace bed thermo well MOC changed from Inconel-601 to Incology-800H for ehanced life.
- SIP Control room Scada for replacing the Auxiliary consol switches for replacing the auxiliary consol switches
- Additional DC system installation for recovering of Dust from material fed to HSM.
- Replacement of natural gas use in burners with Propane to enhance the productivity
- Fixing of modified oxide screens in Primary deck for improving the screening efficiency
- Fixing of natural ventilators in Product warehouse to stop use of Light in day time

Sinter

- Change in inclination of nine roll spreader
- Nine roll spreader replaced by segregation plate
- Permeability bars modification
- Modifying the pallet cars with blank side locking grate bars
- Oxygen injection in combustion air of furnace
- Increase in pallet car height to 720 mm for sinter m/c.
- Self lining and soft landing arrangement in P - series discharge chutes
- Compaction roller fixing for compaction of raw mix near side wall of pallet cars
- Magnetic Segregation Plate fixing
- Replacement of conventional choke with Electronic chokes in Sinter Plant
- Mechanization of quick lime feeding system

Software, Consultancy and Collaborations cost for automation and networking:

- Low Level Integration Project: (Level - 0 to Level 5) related to Hardware procurement, Consultation services, Networking components projects, services and consultancy, AMC software and hardware
- Network upgradation (BF, SMS, and Caster and Mill)
- Barge Tracking System (H/w, software and Services)
- Equipment Reliability and Condition Monitoring Systems related to Hardware procurement, Procurement of Measuring sensors for vibration, rpm, motor current, temperature, balancing, etc., AMC for Software and Hardware
- Level 2 upgradation (BF) and New Level 2 Improvisation for SIP/SINTER

New Product Development

Following new grades have been developed:

- Chequered plate in lower thickness (2.5mm)
- High carbon grade (0.5-0.6%C)
- Boiler quality grade
- A no. of structural grades suited for specific customer requirements
- APIX70 in thicknesses less than 12mm.

Cost Reduction Projects:

- Replacement of existing fuel by Regasified LNG in caster and Lime Calcination Plant (LCP)
- Replacement of conventional choke with Electronic chokes in Sinter Plant

Quality improvement

- Parsytech Surface inspection system for HSM
- Scanning Electron Microscope
- Desulphuriser Unit installation to remove the sulphur content in natural gas



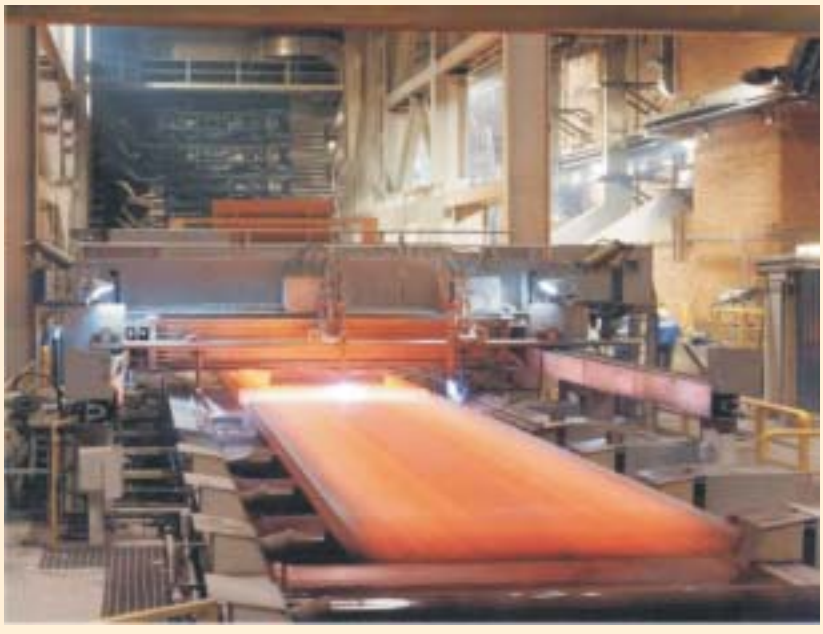
JINDAL STEEL AND POWER LTD. (JSPL)

Highlights of different R&D work during the year 2009-10

Specific achievements and improvements in development of new processes:

Already Completed:

- Pilot coke oven trials with various proportion of bio-diesel (5-10%) to achieve coke properties for use in blast furnace.This will act as an environment friendly substitute for hard coking coal (in the event of rising cost of hard coking coal).
- Electric Arc furnace (EAF) top shell preparation using ultrasonic testing of water cooled panels, replacement of tube type copper panels by box type panels, and subsequent refractory coating. This eliminated delays due to water panel leakage and subsequent refractory damage of lower shell in EAF.
- Improvement in coke quality through study on effect of weathering on coking coal fluidity and its maceral content. Different types of coking coal samples of 15 kg were taken for the analysis of fluidity and oxy-vitrinite. Time duration was taken for this study is 63 days and after that the fluidity and oxy-Vitrinite analysis is carried out after each 10 days of interval.The fluidity and Vitrinite content of coal degrades and subsequently becomes constant after 40 days.With the help of above study, each variety of coal can be evaluated. This will be helpful in selection of coal for coke making. This has helped to increase sponge iron productivity and quality especially with iron ore pellets.



Breakout Prediction and Monitoring System at JSPL.

- Evaluation of welded joints for fatigue using Material testing System (MTS). This helped us to select correct welding process, that is expected to have desired life.
- Development of tundish design of slab caster to reduce tundish skull loss in collaboration with IIT-Kanpur. The tundish design of slab caster was modified by inserting a dam with turbo pad to facilitate smooth flow of steel in the tundish and minimum left over metal without affecting the cleanliness of slab.

Product Developments

- Casting of 165 x 165 mm square section for light section mill and wire rod mill. This is to meet the need of customer in various sectors.

New steel grades developed in the year 2009-10:

Grade Developed	Application
HC-66/70,HC 71/75 (Low nitrogen grade)	Wire rod applications
JSL-25 (162 dia round) Alloy steel for seamless pipe application.	Seam less pipe production
JSP PT02 (IS 10748) Grade 2	Fabrication
JSP PT03 (IS 10748) Grade 2	Fabrication
SWRM -15,JSL -55,5SP	Seam less pipe
SAE 1012S (Bloom)	Wire rod applications
AISI12L14 (Bloom)	Free cutting steels
Corten steel	Rail-wagon body fabrication



R&D work (to be completed):

- In House Development of break out prediction system in collaboration with M/s Rockwell Automation and IIT-Kanpur at one fifth cost of imported technology .(project under trial runs)

  This will identify the stickers in slab caster moulds with subsequent auto correction to prevent break outs.

Features:

- Breakout prediction involves measuring the mould temperatures by embedded sheathed thermocouples placed uniformly across the mould wide and narrow plates in two planes. During normal operation the temperature differences between the thermocouple pairs are almost constant during casting.
- However due to hot spot development caused by a sticker, the temperature of the first (upper) thermocouple suddenly increases. The second (lower) thermocouple however stays in normal condition. As the hot spot moves downward, the temperature at the first thermocouple decreases while that at the second increases. The above phenomenon is predicted and alarms are generated for corrective actions.

Additional Features:

- Thermal imaging of mould by plotting the differential temperatures in a color scale. This depicts any changes in the steel flow pattern, deviation in mould practices etc. so that corrective actions can be taken.
- Thermal map Display of actual temperature and casting speed.

- Study to minimize accretion in coal based DRI kilns: Final trials in DRI kilns awaited.
- Development of software for mix grade casting in collaboration with IIT-Kanpur: Initial trials taken at slab caster
- Water modeling study of Near-net-shape caster for reducing tundish skull and improving steel cleanliness in collaboration with IIT-Kanpur: Job under progress.
- Process optimization for iron ore pellet in rotary kilns for increasing productivity: Trial completed with 12% increase in productivity.
- Substitution of existing coking coal by using various sources of coking / non coking coal with the help of petrographic and pilot coke oven studies: Under progress
- Initiation of iron ore fines washing to reduce slag rate at BF (Field trial completed): Slag volume decreased from 295 Kg/thm to 280 kg/thm.
- Production and usage of dolomitic lime instead of costly lime from Jaisalmer for steel making: Initial trials were successful in reducing cost of steel by Rs. 80/- per tonne. Decision has been taken for its continuous use.

Year wise total expenditure on R&D:

R&D expenditure (Rs. in lakh)	2007 - 08	2008 - 09	2009 - 10 (April-September 09)
Capital	126.10	107.15	NA
Recurring	210.20	207.14	NA
Total	336.30	314.29	250
Total R&D expenditure as a % of total turnover	0.06%	0.04%	NA



CHAPTER VII

ENERGY AND ENVIRONMENT MANAGEMENT

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 environmental pollution in steel plants. Some of the steps/initiatives taken by the Ministry of Steel through various forums and mechanism during the year are:

Charter on Corporate Responsibility for Environment Protection (CREP)

This is an initiative of the Ministry of Environment and Forests (MoEF)/Central Pollution Control Board (CPCB) in association with the Ministry of Steel and the main/major steel plants to reduce environment pollution, water consumption, energy consumption, solid waste and hazardous waste management etc. as per mutually agreed targets with the purpose to go beyond the compliance of regulatory norms for prevention and control of pollution.

A National Task Force in CPCB reviews the compliance of CREP action points and targets. At the instance of CPCB and the MoEF, the Ministry of Steel reviewed the compliance in respect of utilisation/recycling of steel making slag in the steel plants vis-à-vis the target of 100% utilisation/recycling. Having noted the technological constraints in 100% utilisation/recycling of such slag, the Ministry of Steel has submitted a roadmap to the MoEF towards recycling/utilisation of the slag.

Clean Development Mechanism (CDM) under Kyoto Protocol

Under this scheme, the Ministry of Steel is facilitating, through the National CDM Authority in the MoEF, adoption of energy efficient clean technologies in iron and steel plants. A large number of iron and steel plants have obtained host country approvals for availing carbon credit by adopting energy efficient clean technologies. So far, 127 such projects amounting to reduction of 99 million tonnes of carbon dioxide equivalent have been approved by the National Clean Development Mechanism (CDM) Authority. Earlier, most of these projects were from the private sector. However, in pursuance of initiatives taken by the Government last year, Public Sector Undertaking (PSU) steel companies like SAIL and RINL have developed CDM projects and obtained host country approval.

UNDP-Global Environment Facility (GEF) Steel Project

Under this project, a scheme has been developed with contribution from the United Nations Development Programme (UNDP) and the Ministry of Steel to facilitate diffusion of energy efficient low carbon technologies in steel re-rolling mills in the country to bring down energy consumption, improve productivity and cost competitiveness together with a reduction in Green House Gas (GHG) emission and related pollution levels. Towards this objective, 34 model units have been identified and so far, technology packages have been commissioned in 15 units.

NEDO Model Projects

Ministry of Steel has been facilitating setting up of energy efficient, environment friendly projects known as Model Projects in different steel plants with financial assistance from Japan. These projects are implemented by New Energy and Industrial Technology Development Organisation (NEDO), Japan. So far, one project has been commissioned at TATA Steel and one more project is under commissioning there. During 2008-09, one model project for sinter cooler waste heat recovery at Visakhapatnam Steel Plant of RINL was approved and the project is under implementation.

Asia-Pacific Partnership on Clean Development and Climate (APPCDC)

Under this mechanism, seven countries namely, America, Australia, China, Canada, India, Japan and South Korea have joined together to promote energy efficient measures through supply of technology/equipment/fund in various sectors of the economy, including iron and steel. Accordingly, there are eight task forces including steel. In India, APPCDC is coordinated by the Ministry of Environment ad Forests (MoEF) and there are two members from the MoEF and one member from the Ministry of External Affairs in its apex body i. e. Programme and Implementation Committee (PIC). The Ministry of Steel is represented in the Steel Task Force as its Co-chair.

Under this mechanism, the Steel Task Force deputed an expert team led by NEDO, Japan to carry out performance diagnosis of three steel plants in India to assess the level of implementation of energy efficient environment friendly technologies and barriers/bottlenecks thereof. Performance diagnosis of TATA Steel Ltd. and Visakhapatnam Steel



Plant (VSP) were carried out during 2008-09 and reports submitted to the Steel Task Force. The Indian steel companies and the Ministry of Steel have been pursuing for developing a mechanism for deployment of energy efficient/environment friendly technologies as well as a designated fund required for the purpose.

STEEL AUTHORITY OF INDIA LTD. (SAIL)

Energy Conservation and Environment Control

- **Introduction of Energy Efficient Ignition System in Sinter Plant#1 at Durgapur Steel Plant**

  Curtain Flame Ignition System has been commissioned in machine # 1, resulting in reduction in specific heat consumption by 50% from 27 to 13.5 Mega Calorie/tonne of sinter and GHG emission by 49% from 0.98 to 0.50 tonne of CO_2/hr. Concurrently, increase in production was achieved from 94.8 to 101.9 tonne/hour.

- **High temperature ladle heating system in Steel Melting Shop-II at Bokaro Steel Plant**

  Commissioning of high temperature ladle heating system in two ladle heating stands has resulted in much faster heating of ladle to the requisite preheat temperature i.e. 1200ºC within 15 hrs as against 800ºC in 24 hrs with the existing ladle heating burner. High ladle temperature is expected to reduce skull formation which would lead to increase in ladle lining life.

- **Design of Efficient and Faster ladle Cooler for Hot Ladles in Steel Melting Shop-I at Bokaro Steel Plant**

  The newly designed ladle cooling system was installed for faster cooling of hot ladles to the working temperature within 30 hrs as against 72 hrs with natural air cooling. This new system, especially useful for the ladles having monolithic safety lining where water spraying is not permissible for faster cooling, has improved the ladle availability leading to reduction in the number of circulation of ladles.

- **Treatment of coke oven effluent from Integrated Steel Plants of SAIL by improved techniques**

  During carbonization of cooking coal in coke ovens a large volume of toxic waste water is generated. In order to improve the quality of treated effluent, studies were conducted with Coke Oven effluent samples from all SAIL ISPs. The laboratory studies demonstrated that Electrochemical and Photocatalytic Treatment reduced Total Dissolved Solids by 25%, Total Suspended Solids by 65% and COD (Chemical Oxygen Demand) by 40% of the samples treated. Significant reductions in organic toxic constituents were also observed.

A view of the Green Rajhara Mines of SAIL.



Consumption of energy per tonne of crude steel in Giga Calorie per tonne of Crude Steel (Gcal/tcs):

Plant	2007-08	2008-09	2009-10 (April-September)
BSP	6.72	6.50	6.57
DSP	6.94	6.50	6.63
RSP	7.39	7.09	7.00
BSL	6.89	6.83	6.74
ISP	8.14	8.18	8.21
SAIL	6.95	6.74	6.74

Few important energy conservation schemes implemented in SAIL during 2008-09 are listed below:

Bhilai Steel Plant (BSP)

- Installation of Hot metal Desulphurisation unit at SMS-II
- Multi-slit burners commissioned in Machines # 3 and 4 of SP- II – Research & Development Centre for Iron & Steel (RDCIS)
- 10000 meter steam pipe line insulation
- Use of electronic ballasts in place of conventional ballasts

Durgapur Steel Plant (DSP)

- Steam injection in Nodulising Drum of Sinter Plant #2 (RDCIS)
- BOO oxygen plant and CDI commissioned
- Patch repairs of CO and BOF Gas holders
- Hearth and Flue tunnel repair of furnaces in Merchant Mill, Skelp Mill, Wheel Plant and Section Mill.
- Replacement: top 2 segments of Skelp Mill Furnace recuperator.

Rourkela Steel Plant (RSP)

- Phase - II computerization of Energy Centre to facilitate more signals to enable better monitoring and control of fuel gases and utilities
- Maintaining LD Gas recovery above 100 Nm3/TCS after commissioning of the LD gas holder
- Avoidance of continuous bleeding of Coke Oven (CO) gas for maintaining grid safety after re-commissioning of 'CO' gas holder
- Provision of high emissivity coating in Walking Beam furnace of Plate Mill
- Commissioning of new coke oven battery # I with zero leak doors, on-main charging and computerized combustion control

Bokaro Steel Plant (BSL)

- Dry gunniting of ovens @ 17 ovens /month
- Running of one exhauster at BPP with steam
- Repair of stoves of BF#3 and BF#4
- Installation of Amano scope in BF # 1 and 4 (RDCIS)
- Optimisation of soaking pits as per daily production schedule (10 - 12 pit in place of 18 earlier)
- Modification of Pit no. 32 with LC - 70 casting
- Use CO gas in one rotary kiln on continuous basis
- Replacement of damaged recuperator in RH#4 of HSM
- Repair of 10 nos. base fan in Annealing I
- Replacement of 3 km damaged water line
- Replacement of 3000 sq. meter damaged insulation on hot surfaces
- Installation of 15 nos. steam traps
- 1250 TPD Oxygen Plant (BOO basis) commissioned
- Computerised Process Control System introduced at SMS-II
- Commissioning of lump ore screening, so that permeability in BF improves, and coke rate decreases accordingly.



IISCO Steel Plant (ISP)

- Capital repair of Blast Furnace # 3
- Phasing out BF # 4 to optimise BF ironmaking
- Cleaning of BF gas line to soaking pits
- Repair of Battery # 8
- Capital repair of Reheating furnace of Heavy Structural Mill
- Installation of reactive power compensation on device in iron section
- Arresting steam leakages by on-line sealing
- Cleaning of boiler heating surface

Few Important energy conservation schemes under implementation in the year 2009-10 are listed below:

Bhilai Steel Plant (BSP)

- New Slab Caster, RH Degasser and Ladle Furnace
- Re-building of Coke Oven Battery # 5
- Waste heat recovery from sinter cooler for hot water generation at SP # II and III (RDCIS)
- Introduction of supervisory computer control system in stoves of BF-IV (RDCIS)
- Electro-magnetic Stirrer for Bloom Caster in SMS-II
- Thyristorisation of Plate Mill stands (Replacement of MG sets)
- Modernisation and Augmentation of capacity of Plate Mill
- Rebuilding of Coke Oven Battery # 6

Durgapur Steel Plant (DSP)

- Introduction of Multi Slit burner in SP # I (RDCIS)
- Stabilization of CDI in BF#3 and BF#4 (RDCIS)

Rourkela Steel Plant (RSP)

- CDI in BF - IV
- Tar injection in BF - I
- Commissioning of Batt-IV

Bokaro Steel Plant (BSL)

- Provision for parallel blowing in SMS-II
- Use of Coal tar injection in BF # 1
- Installation of 2nd LHF and Extension bay in CCS
- Commissioning of 3rd BF gas bleeder and laying of ND 1400 BF gas line to 3rd bleeder
- Gunniting of BF#1
- Gunniting and fixing of over burden probe in BF # 5
- Installation of CDI in BF # 2 and BF # 3
- Installation of 8 nos. Sinter screens and Coke screens
- Upgradation of BF # 2
- Modernisation of GCP # 2
- Additional BF gas pipe line to Captive Power Plant

IISCO Steel Plant (ISP)

- Introduction of BF gas in boiler unit
- Thermal insulation of steam pipelines and hot air ducts
- Improvement in performance in reheating furnace of heavy structural mill of ISP (RDCIS)

SAIL believes in continuous Eco-Restoration.



RASHTRIYA ISPAT NIGAM LTD. (RINL)

Energy Management

Specific energy consumption at RINL is one of the lowest amongst the integrated steel plants in India. However, over the last few years, inspite of several energy consumption measures adopted by the company, its energy consumption is on an increase which is visible from the table given below:

Energy Consumption in Giga Calorie per tonne of Liquid Steel (G.cal/tlS):

Year	Specific Energy Consumption
2007-08	6.21
2008-09	6.45
2009-10 (Upto December)	6.56

Measures Taken/being taken for reduction in Energy Consumption and Future Plans:

- Replacement of tubular air heater of boiler-1 in thermal power plant.
- Replacement of 5 no existing chillers with eco-friendly and energy efficient chillers in chilled water plant-1.
- Replacement of existing chiller-2,4,5,6 and 8 with eco-friendly and energy efficient chillers in chilled water plant-3.
- Replacement of existing chiller-3 with eco-friendly and energy efficient chillers in chilled water plant-4.
- Automation of electro static precipitators in sinter plant.
- Installation of electronic controllers in ESPs at thermal power plant boilers - 3and4.
- Commissioning of 4th stream in LD gas recovery plant.
- Up-gradation of Supervisory Control and Data Acquisition System
- Commissioning of Level # 2 automation of MMSM furnaces.
- Replacement of air recuperator in walking beam furnace-2 of MMSM.

The employees who have contributed towards the protection/improvement of environment at RINL were recognized with "Green Award".



Waste Heat Recovery:

- Total volume of LD Gas recovered at LD Gas recovery plant-197.613 * M.ncum
- Total power generated at Back Pressure Turbine Station- 75845 $ MWH
- Total power generated at Gas Expansion Turbine Station- 57316 $ MWH

'*' - M.ncum-Million Normal Cubic Meters

'$' - MWH-Mega Watt Hours

RINL was awarded as Energy Efficient Unit by CII-Godrej Green Business Centre, Chennai in November 2009.

NMDC LTD.

Actual energy consumption from the Projects at Karnataka and Chhattisgarh :

Energy Consumption for the year 2007-08	:	1.78 KWH Per Tonne of iron ore excavated
Energy Consumption for the year 2008-09	:	1.79 KWH Per Tonne of iron ore excavated
Energy Consumption during April-December 2009	:	1.76 KWH Per Tonne of iron ore excavated

Measures taken/ being taken for reduction in energy consumption and the future plans to this effect :

NMDC has undertaken energy audit studies through a consultant M/s Electrical Research and Development Association, Vadodara, Gujarat who have addressed energy conservation issues of Donimalai and Bacheli Complex projects and implementation of their recommendations are in progress in phase wise. Power factor is being maintained around 0.95 with proper demand management with static capacitor on HT and LT Fluorescent lamps have been installed with electronic ballasts in the residential quarters in the townships. This practice shall be continued.

Electronic fan regulators are installed as against conventional wire-wound regulators and this will be practiced. Timers are provided for automatic switching off of the street lights, lights in public buildings, mine haul road lighting and equipment lighting, plant illumination etc., and their functioning is continuously monitored.

Overall energy consumption of township is being reduced progressively by better counseling on wastage of energy in residential as well as public buildings. Left over eddy current control motors are being replaced with energy efficient motors, run through VF drives.

Transparent sheets are provided on the plant buildings to have natural lighting. Optimum feed rate is maintained in the Downhill conveyor system to generate power and feed back into the system to reduce overall energy consumption.

Environment and Pollution Control measures:

NMDC's projects at Bailadila Dep-5, Bailadila Dep-14/ 11C, Donimalai Iron Ore Project and Diamond Mining Project, Majhagawan, Panna were certified with ISO 14001:2004 Environmental Management Systems.

The Ambient Air quality studies conducted during summer season' 2009 at iron ore projects of Bacheli, Kirandul and Donimalai showed that all particulate and gaseous pollutants were within norms prescribed by CPCB for Industrial and residential areas.

Details of the activities taken up at projects are as follows:

- De-silting of tailing dam, check dams etc.
- Development and maintenance of parks, nursery etc
- Plantation and its maintenance
- Construction of buttress walls/Reinforced Cemet Concrete (RCC) walls wherever necessary
- Provision of dust suppressors (water injection) in all Blast Hole Drill machines
- Regular use of water sprinklers in the haul roads to check the dust emission round the clock. Dust binding chemical compound is also added to water for more efficient dust suppression.



- Regular injection of water mist at primary crusher; where the ore is dumped for crushing through the High pressure water jets, fitted with specially designed nozzles to check the dust generation during crushing as well as at all transfer points.
- Wet screening is practiced in screening plant by continuous water spraying to further control the emission of dust during the screening of Iron Ore.
- Slow speed classifiers and hydro-cyclone and high rated thickeners are being used for maximum recovery of ore along with water conservation which is being recycled for re use in screening plant.
- Covering of belt conveyors to control the dust emission. Regulation of speed and feed on conveyors is also practiced to prevent fine ore spillage, which can generate dust.

MANGANESE ORE (INDIA) LTD. (MOIL)

The Company's strategy towards eco-friendly mining encompasses the following:

- Scientific Mine Planning
- Effective Pollution Control Measures.
- Optimization of resources utilization.
- Regular monitoring of Air, water, Noise and vibration quality.
- Biological reclamation of degraded land.
- Rehabilitation of reclaimed areas.
- Rural and community development.

The current level of emission/pollution for Air, Water, Noise and Hazardous waste is prescribed by State Pollution Control Board (SPCB). Regular monitoring of these components is carried out inhouse as well by the SPCB officials. The emissions/pollutants are reported to be below the standards prescribed by the competent agencies. Various measures are undertaken for control of pollutants which are briefly described below:

Air Pollution Control

The points of dust generation are : i) Blast hole drilling ii) Blasting iii) Loading of muck iv) Haulage of ore, waste rock and soil v) crushers and ore processing plant vi) Dispatch of ore in trucks. Dust suppression of these points are ensured by:

- Wet drilling of blast holes.
- Muck piles are be wetted before loading.
- Haulage roads are frequently sprinkled with water for which truck mounted water tankers with sprinkler arrangement have been provided.
- Maintaining the drilling speed as recommended by the manufacturers control dust produced during deep large blast hole drilling.

Regular maintenance of vehicles and machineries is carried out in order to control emissions; A fully equipped workshop is operating in the mining area for timely and proper maintenance of all machinery. This proper maintenance ensure that gaseous exhaust from these are minimum.

Green belt development have been taken up all along the haul roads and overburden dumps; The dust respirators are provided to all the workers in dusty atmosphere; and a good house keeping and proper maintenance is practiced which help in controlling the pollution.

Water Pollution

- The water pumped during underground mining operation is fully utilized for plantation and sand stowing operations.
- The rain water collected in open pit is a source of water for dust suppression and plantation activity, which is carried out every year.
- There is no discharge of water from any of the mine in the nearby water sources.

Noise Pollution

Mitigation measures for noise and ground vibrations are of following types:

- Noise is best abated at source by choosing machinery and equipment suitably, by proper mounting of equipment and ventilation systems and by providing noise insulating enclosures or padding where practicable.



- The equipment to be procured is new and as such the noise emission is optimal for their design/operation. Proper maintenance/working is done which keeps the noise level within limits.
- Planting of bushy trees of rich canopy in and around the mine area to intercept noise transmission. A 50 m wide belt of trees of different heights are useful to act as noise attenuater in the mining areas.

Solid Waste Management

- On an average 3.0 million cubic meter of solid waste is produced during the period of report. MOIL has adopted a system to segregate these waste in two categories namely (i) 'white waste and' (ii) 'black waste'. Both the waste are dumped separately and systematically. White waste is totally a waste rock and black waste is mostly magniferous rocks or 'sub-grade mineral' which can be utilized in future.
- White dumps, once stabilized, are covered with plantation. MOIL in consultation with National Environmental Engineering Research Institute (NEERI) have successfully carried out plantation over these white dumps.
- Fresh and active dumps are being protected by benching and trench cutting/stone pitching wall of 1m height all along the periphery at the ground level.

Plantation Efforts

Massive plantation is carried out with local tree species. MOIL has planted more than 14 lakh trees in all the mines over the last recorded 20 years.

Expenditure incurred on Pollution Control Measures

The expenditure on account of dust control, noise control, vibration control and solid waste management are included in the mining cost in the Company. The expenditure incurred on account of plantation and monitoring is as follows:

Year	Rs. in lakh
2007-08	46.28
2008-09	53.05
2009-10 (Upto December 2009 - Provisional)	60.42

Initiative taken by the Organisation regarding Energy Conservation and Efficiency

KWH Consumption Per Tonne	2007-08	2008-09	2009-10 (Upto December 2009 -Provisional)
Manganese Ore	12.25	15.90	17.20
Electrolytic Manganese Dioxide	2268	2300	2456
Ferro Manganese	2862	3016	2946

MECON LTD.

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

Energy Conservation

Reduction of Green House Gases (GHGs) by technological innovations including Energy Conservation to reduce global warming is a new sector of business in India as per the Kyoto Protocol ratified by India. MECON has developed its expertise in this new field through training of its experts in Clean Development Mechanism (CDM). To keep up with the challenge, a Climate Change Cell has been formed in the Environmental Engineering Section. In the field of CDM, MECON is carrying out CDM assignment from BSL for preparation of PIN and PDD for their Sponge Iron Project at Meramandali in association with M/s Steel Plantech Co. (SPCO), Japan for energy conservation through utilization of heat of kiln waste gases in waste heat recovery boilers and producing electrical power from that and distributing it to the grid. SPCO, Japan has decided to purchase the Certified Emission Reductions (CERs) from BSL if the project is approved by the United Nations Framework Convention of Climate Change (UNFCCC). The funding to MECON is being made by SPCO. MECON will also have a share of CERs throughout the life of the CDM entitlement.



In the field of Clean Development Mechanism, MECON has completed order from M/s SPCO, Japan for making PDD for Energy Saving Plan for Re-heating Furnace with regenerative burners for Bokaro Steel Plant and Coke Dry Quenching in Durgapur Steel Plant of SAIL.

Pollution Control and Solid Waste Management

In the field of protection of Ecology, the Afforestation and Reforestation efforts have now been approved by United Nations Framework Convention on Climate Change (UNFCCC) as Clean Development Mechanism (CDM) project as it absorbs Carbon Dioxide and reduces GHGs. In the field of sequestering of Green Home Gas (GHGs) by forest sector, a scientist of MECON has been selected by the UNFCCC Secretariat, Germany and has been placed in the Afforestation and Reforestation Working Group.

MECON has put forward significant engineering efforts to achieve zero discharge from production plants being engineered by them.

MECON has received orders, from both public and private sectors, for preparation of Environment Impact Assessment/ Environment Management Plan (EIA/EMP) reports for their new plants/expansion of plants for Raw Material Division, SAIL Plants, Bhushan Steel Ltd. etc.

MECON's Environmental Engg. Laboratory which is recognized under Environment Protection Act, 1986 also renders its services for sampling, testing and analysis of air, water, noise, sewage and soil quality to various Plants in Steel and other Sectors both in private and public.

MECON has prepared Environmental Norms and Standards for Sponge Iron Plants in the country in association with Central Pollution Control Board (CPCB) and has been asked to prepare environmental and energy saving standards for Sinter Plants by CPCB; Project on Development of Comprehensive Industry Document (COINDS) and Environmental Standards for Re-rolling Mills; Development of Guidelines for Management of Solid and Hazardous Waste generated in Integrated Iron and Steel Industry etc.

MECON has received a prestigious assignment for providing consultancy services for implementing ISO 9001 and ISO 14001 in five model unit each in Steel Re-rolling Mills in India from UNDP/GEF, Ministry of Steel, Govt. of India.

MECON is executing rebuilding job of Coke Oven Battery No. 10 at ISP, Burnpur as Consultant with Biological Oxidation and Dephenolisation (BOD) plant for degradation of Coke Oven effluents and also BOD Plant for 2.5 MT expansion of ISP, Burnpur. In addition, MECON is carrying out detail engineering work of sewage treatment plant, sewerage facilities and other effluent treatment facilities for NALCO, Angul; SAIL Projects of Bokaro, Bhilai, Durgapur, Burnpur, as well as from different private sector companies like Bhushan group, Jindal Group etc. MECON has also prepared Technical Specifications Continuous Ambient Air Quality Monitoring System and Green Belt Development for ISP-SAIL. For Orissa Mining Corpn. Ltd., MECON is carrying out consultancy services for Tailing Pond and Effluent Treatment Plant for their two Chrome Ore Beneficiation Plants at South Kaliapani.

SPONGE IRON INDIA LTD. (SIIL)

Energy conservation

As a part of continuing efforts towards management of energy, the company is making significant improvement in energy efficiency of the operating units. Against standard consumption of 160 units of power consumption per tonne of sponge iron, the company achieved a consumption of level of 146 units per tonne of sponge iron during the period April-December 2009.

As a measure to conserve energy, company has further invested for Waste Heat Recovery (WHR) and Captive Power Plant (CPP) toards renovation and modification works.

Enviornmental management and solid waste management

All norms specified by Andhra Pradesh Pollution Control Board/Central Pollution Control Board are being maintained within the standards prescribed.

Solid waste management

- Solid waste generation is 300 TPA which is useful for levelling low areas inside the plant.



KIOCL LTD.

Energy conservation

At Kudremukh

Power factor improvement Capacitor banks have been commissioned during December in place of existing ball mill motor. Due to this, they will be saving 95 Kilo Watt of power consumption per hour at Kudremukh. Yearly saving calculated as below:

Energy saving per hour	=	95 kwh
Energy saving per day (8 hours per day)	=	760 kwh
Energy saving per year (760 x 365)	=	277400 kwh
Yearly energy cost saving @ Rs. 4.30 / unit	=	Rs. 11,92,620/-

No other energy conservation measures have been taken up as there is no production at Kudremukh site.

Total energy consumed from 01-04-2009 to 30-09-2009 is 4.7012 GWH.

At Mangalore

PELLET PLANT, PORT FACILITIES AND CAPTIVE POWER PLANT

Total energy consumed (in Giga Watt Hours):

- 114.40 GWH for the year 2008-09.
- 19.07 GWH for the year 2009-10 (upto September, 2009)*

**Due to recession, plant could not run continuously.*

Energy consumed in Kilo Watt Hours per tonne of Pellets for the last 2 years and April to September, 2009 is as under:

Year	2007-08	2008-09	2009-10 upto September, 2009
Power consumption per tonne of Pellets (Kilo Watt Hours/Tonne)	84.10	86.90	78.14
Heat consumption per tonne of pellets in '000 Kilo Calories	237.0	241.0	236.12

BLAST FURNACE UNIT

a) Energy consumption details :

Year	Total consumption in Giga Watt Hours (GWH)
2007-08	33.60
2008-09	25.20
2009-10 (upto September 2009)	11.99

b) Specific Energy Consumption and Coke rate

Year	Specific Energy KWH / Tonne of Hot metal	Coke rate KG / Tonne of Hot metal
2007-08	214	756
2008-09	213	711
2009-10 (upto September, 2009) *	190	661

**plant is under shutdown from 05-08-2009.*

Environment Management

Pollution Control and Solid Waste Management

Stoppage of mining and related activities: In view of the verdict of the Hon'ble Supreme Court, mining operation has been stopped on 31-12-2005 at Kudremukh Mine site. The execution of pollution control jobs such as de-silting, construction of check bunds etc., requires authorization from Forest Department as 3203.55 Hectares of Forest land out of total lease area of 4605 Hectares has been attached to the Kudremukh National Park.



Treatment Units

Operation of Sewage treatment plants at Warehouse, Concentrator and Township is being carried out on regular basis.

Afforestation Activity

No afforestation activities could be undertaken in mine abandoned area during 2008-09, due to the restrictions on activities in forest area.

Monitoring and Measurement:

The water quality of Bhadra River at up-stream and down-stream stations and sewage effluents from three STPs is being monitored by Karnataka State Pollution Control Board (KSPCB) on monthly basis.

Solid Waste Management:

Municipal Solid waste at 2 tonnes per day is collected from the residential and public areas is disposed at the landfill area about 3 KM from the residential area.

The Sewage sludge generated at the Township STP is being used for gardening at the Town park and is also used by the local villagers as manure.

At Mangalore

Pellet Plant, Port Facilities and Captive Power Plant

- The drains in the plant area are provided with catch bunds to arrest the silt. The silt thus collected is recirculated into the process for resource conservation/pollution control.
- Water sprinkling is being done in the industrial area to suppress the dust.
- 200 saplings have been planted in the plant premises.
- Dust generated at bentonite grinding, Limestone and Coke grinding units is controlled by introducing reverse jet bag filters. The emission from the stack attached to this unit is observed to be within norms stipulated in the air content.
- Pellet plant is provided with multiclones and wet scrubbers for combating dust generated during production. The dust collected through multiclones is recycled/disposed as Pellet fines.
- The outlet from the scrubber is thickened in a thickener and the underflow of the thickener is fed to the slurry tanks at filter plant for further filtration/processing.
- Flu Gas De-sulphurisation (FGD) units at Captive Power Plant (CPP) scrub the SO_2 gases in the exhaust of DG sets with NaOH. This reduces the SO_2 emission by more than 90%.
- A pit for collection of spillages in Ball Mill area has been constructed. The spilled material is being re-circulated back into the process.

At Blast Furnace Unit

- Water sprinkling is being done in the industrial area to suppress the dust.
- Blast Furnace is provided with dust catcher, gas cleaning plant and effluent treatment plant (Thickeners)
- Treatment plant (Thickners): The solid separated in thickeners in the form of slurry is being sent to Pellet plant in tankers for recirculation to conserve the resources.
- Rain harvesting/water conservation: The system of collecting the monsoon water and storing in the reservoir was developed in 2006. Harvesting of monsoon water is being done successfully from 2007 monsoon onwards.
- Afforestation is being done on regular basis by planting atleast 200-250 saplings every year.

Compliance Of Statutory Requirement (In All Locations)

- The standard norms prescribed by KSPCB in respect of Air and water quality monitoring are being adhered to in all area of work.
- The consents/authorizations are being renewed on schedule.
- The compliance status with respect to the conditions stipulated in the consents are being reported regularly to the concerned authorities. The compliance to consent conditions is satisfactory.
- The Company has fully implemented the requirement of:
  - Battery Rules 2001
  - Hazardous Waste Management (Amended) Rules 2003
  - Bio Medical Waste Rules 1998
  - Water Act 1974
  - Air Act 1981
  - Environment Protection Act 1986
- The Company is having valid ISO-14001, ISO-9001 and ISO -18001 Certification for Mangalore establishment.



TATA STEEL LTD.

Energy Management

A pilot technology demonstration plant was set-up at Ferro Alloy Plant, Bamnipal to demonstrate a new Tata Steel Hydrogen Harvesting Process technology. The process generate hydrogen gas using waste heat of molten steel and ferro-alloyes making slags. The project also received prestigious Tata Innovista Promising Innovation Award in July 2009.

	2007-08	2008-09	2009-10 (April-December 2009)
Specific Energy Consumption	6.655 Gcal/tcs	6.587 Gcal/tcs	6.173 Gcal/tcs

Measures Taken

- Installation and commissioning of 120 MW by-product gas fired Power Plant.
- Enhanced L.D Gas recovery.
- Shutdown of old and inefficient Blast Furnaces and Blowers.
- Up gradation of 'C' Blast Furnace with high top pressure operation.
- Higher coal injection in Blast Furnace.
- Improvement in Boiler efficiency of Captive Power Plants.

ENVIRONMENT HIGHLIGHTS in 2009-10

Results and Actions:

- Specific water pollutants discharges from steel plant were reduced by 30% from 0.13 kg/tcs in 2008-09 to 0.09kg/tcs in 2009-10 (till December 2009) due to:
  - Recirculation of Waste water from Sunsungaria and Garam Nalla
  - Effective operations of Waste water Treatment Plants in process units.
  - Specific water consumption for steel plant was reduced by 17.6% from 6.8 m^3/tcs in 2008-09 to 5.6 m^3/tcs in 2009-10 (till December 2009).
  - Waste water recirculation system at Sunsungaria Nalla commissioned.
  - Sustained re-circulation of wastewater from Garam Nalla and Bara Sewage Treatment Plant.
  - Focused campaign for controlling leakages and wastages of water.

A Green View of TATA's Steel Plant at Jamshedpur.



- CO_2 emission as per the Worldsteel Association methodology comes to 2.42 (till December 2009) due to:
  - Increased LD Gas Recovery and its utilization.
  - Efficient operation of Toppressure Recovery Turbine (TRT) at H Blast furnace for generating power (~14 MW)
  - Increased granulation of BF slag to 97% in 2009-10 (till Dec.09)
  - Reduced fuel rate from 575 kg/thm to 568 kg/thm in Blast furnaces
  - The project for retrofitting of TRT in `G' Blast furnace was registered at UNFCCC as CDM Project.
  - 100% online cast house slag granulation facilities provided in all the operating blast furnaces by providing online cast-house slag granulation facility at `C' Blast Furnace.
  - Environmental Health and Safety Management System was upgraded and certified as per OHSAS-18001:2007 and ISO-14001: 2004 standards.
  - More than 4500 trees were planted inside the steel works during the 2009-10 to improve the greenery.

STATUS OF AIR POLLUTION IN STEEL WORKS

Stack Emissions Milligram per Normal Cubic Meter (mg / Nm^3)

Process Stacks attached to	Pollutant	Indian Standard	Actual 07-08	Actual 08-09	Actual 09-10 (December)
Blast Furnace Stoves	PM	150 mg / Nm^3	20.7	23.2	26.9
Sinter Plant	PM	150 mg / Nm^3	103.0	137.4	124.7
Refractories Production	PM	150 mg / Nm^3	43.4	44.7	39.9
Steel Melting Shops	PM	150 mg / Nm^3	79.1	95.3	101.85
Coke Plant Waste Gas	PM	150 mg / Nm^3	37.1	43.1	87.1
	SO_2	800 mg / Nm^3	138	160	143.5
	NOx	500 mg / Nm^3	253	249	209.0
Captive Power Plants	PM	350 mg / Nm^3	32.3	33.2	37.75

Work Area dust (SPM - mg / m^3)

Work Area Location	Pollutant	Indian Standard	Actual 07-08	Actual 08-09	Actual 09-10 (December)
Blast Furnace Cast houses	SPM	10 mg/m^3	1.95	2.36	2.40
Discharge Platform of Maerz Kiln	SPM	10 mg/m^3	2.22	3.98	1.81
Machine Floor at Sinter Plant	SPM	10 mg/m^3	5.22	9.12	5.19
Ladle Furnace of LD-1	SPM	10 mg/m^3	1.98	2.32	2.77

PM - Particulate Matter SPM - Suspended Particulate Matter

Visible Fugitive Emission from Coke Ovens at Coke Plants

(All figures are in %; Data Related to 09-10 is up to December 2009)

Para meters	Legal norms	Batt#3		Batt#5		Batt#6		Batt#7		Batt#8*		Batt#9*	
		08-09	09-10	08-09	09-10	08-09	09-10	08-09	09-10	08-09	09-10	08-09	09-10
Percentage Leaking Doors (PLD)	New Battery* -5% Old Battery-10%	3.6	3.1	2.4	1.9	2.6	1.5	2.3	1.5	2.7	2.2	2.9	2.3
Percentage Leaking Off Takes (PLO)	4%	1.6	1.6	0.84	0.90	1.3	0.60	1.2	0.75	Nil	Nil	Nil	Nil
Percentage Leaking Lids (PLL)	1%	0.59	0.71	0.26	0.35	0.81	0.50	0.61	0.50	Nil	Nil	Nil	Nil
Charging Emission (Sec/Charge)	50 Sec.		73					73			Not Applicable		

**New Battery: 8 and 9*



Noise Mapping around Tata Steel Works Boundary (2009-10 till December 2009)

Location	Norm Day dB(A)	Norm Night dB(A)	Result (Day time) dB(A)	Result (Night Time) dB(A)
"N" Road Gate Bistupur	75	70	60.1	50.4
Ram Mandir Drain	75	70	60.3	53.2
Tata Pigment Gate	75	70	73.5	59.7
Auction Yard Gate	75	70	60.3	50.1
Susungaria Gate	75	70	60.5	51.3
HSM Drain	75	70	56.7	50.2
Slag Road Gate	75	70	70.3	63.3
SGDP Gate	75	70	64.2	56.7
Corporate Services Lawn (MD Office)	75	70	55.4	49.1

Status of Water Pollution in Steel Works

Parameter	07-08	08-09	2009-10 (December)
Effluent generation- million cubic meter	14.38	14.87	9.31
Total Suspended Solids- tones	709.18	611.21	298.27
Oil and Grease - tonnes	18.91	22.10	14.68
Ammonia- tonnes	70.53	88.23	66.35
Cyanide- tonnes	1.25	1.35	0.88
Phenol- tonnes	1.00	1.27	1.20

Status of Solid Waste for Steel Works in Tonnes and % Utilisation

Utilization	07-08 (%)	08-09 (%)	2009-10 (December) (%)
B F Slag	94.27	96.38	97.54
L D Slag	74.13	78.49	75.96
B F Sludge	84.32	71.95	100
L D Sludge	69.09	82.90	80.67
Mill Sludge	96.34	96.93	100
Mill Scale	96.75	100	100
Flue Dust	83.46	87.85	94.86
Lime Fines	100	100	100
Dolo Dust	100	100	100
Undersize lime stone	100	100	100
Refractory Waste	100	100	100
Coal Tar Sludge/Oil Sludge	100	100	100
BOD Sludge	-	100	100
Total Utilization %	**85.43**	**89.63**	**89.73**

Capital Expenditure on Pollution Control Activities

Year	Amounts Spent *(Rs. in crore)*
2002-2003	42.00
2003-2004	91.10
2004-2005	58.47
2005-2006	115.11
2006-2007	133.70
2007-2008	215.03
2008-2009	151.52



JSW STEEL LTD.

Energy Management

Specific Energy Consumption Giga calorie / tonne of crude steel

- 2007-08 6.847
- 2008-09 6.704
- 2009-10 (April to September) 6.797

Measures taken/being taken for reduction in energy consumption

Measures taken- Improvement of Energy Parameters in April - Sep 09-10 over 08-09

- Power generation in Captive Power Plant #2 increased from 70.25 to 103.32 MWH. This has increased after providing Blast furnace gas to new boiler.
- Corex gas utilization improved from 94.17% to 97.23% by improving the operation of flare control valves.
- Specific heat consumption of Pellet Plant reduced from 0.15 Gcal/tonne to 0.141 Gcal/tonne by improving the availability of Pellet Plant by effective preventive maintenance.
- BF coke rate reduced from 572 Kg/THM to 520 Kg/tonne of hot metal by increasing pulverized coal injection.
- In Lime Calcining Plant Specific heat consumption reduced from 0.83 Gcal/tonne to 0.674 Gcal/tonne and Specific power consumption reduced from 37.48 KWH/tonne to 30 KWH/tonne. This is achieved by augmenting the gas generation by commissioning Gas Mixing Station thereby increasing running time of LCP units.
- Specific heat consumption of Hot Strip Mill reduced from 0.31 Gcal/tonne to 0.287 Gcal/tonne. This was possible by improving the gas availability thereby improving the rolling time of HSM.

Measures being taken

- Replacing High calorific and high pressure corex gas by low calorific and low pressure BF gas for Iron ore drying of Pellet Plant.
- Coke Oven Plant #3 batteries to be converted to BF gas heating instead of Coke oven gas heating. This has been made possible by interconnecting 4 mTPA BF gas network with 7 mTPA BF gas network to ensure uninterrupted BF gas availability for Coke oven plant#3 even during shutdown of BF#3.
- A gas mixing and boosting station is planned to take care of non availability of HP corex gas during long shutdown of corex units.
- TRT for BF#3 is being commissioned by Mar'10. This unit will generate 15 MWH of power. LD gas recovery of BOF#2 plant is being commissioned by Jan'10 end.

ESSAR STEEL LTD.

Energy management

The company has taken several energy conservation measures during the year 2008-09 as a result of which its specific energy consumption has come down from 5.99 Gcal/tonne of crude steel in 2007-08 to 5.81 Gcal/tonne of crude steel in 2008-09.

Environment management

Pollution Control: Because of several measures adopted, the plants complied with all the norms/ regulations prescribed by the state/central pollution control authorities.

Solid waste generation and utilisation

Solid waste generation	1,353,119 tonnes
Solid wastes recycled/reused	1,249,019 tonnes
Solid wastes sold	104,100 tonnes
% Utilisation	100%



ISPAT INDUSTRIES INDIA LTD

Energy Intensity/Specific Energy Consumption

Financial Year	Energy intensity (Gcal/tonne steel)
April 2007-March 2008	5.73
April 2008-March 2009	5.42*
April 2009-September 09	5.46

** Blast furnace and Sinter plant were under capital repair for approx 6 months*

Energy Conservation measures already taken in Ispat, Dolvi

Energy Efficiency in Ispat has been accorded prime importance from initial stages i.e. Plant layout and Selection of technology and equipment as indicated below:

- Midrex Sponge Iron Plant with heat recovery
- Sintering plant with cooler heat recovery
- Blast furnace with high top pressure, coal dust injection, high blast temperature, Bell Less Top (BLT), Gas Expansion turbine and stove waste heat recovery
- Con-arc steel making furnaces with Direct Reduced Iron (DRI), hot metal and scrap as input
- Compact strip plant with caster and tunnel furnace with recuperators.
- Waste heat recovery from 11.8 MW Diesel generator Station to produce steam for furnace oil heating

While Energy conservation has always been a thrust area for continuous improvement, major actions taken during the last few years are listed below:

- Connection of Soft starter cum Energy Saver modules.
- Installation of intelligent Cooling Tower energy saver at Hot Strip Mill (HSM)
- Connection of Electronic Ballast in place of conventional chokes
- Connection of capacitor banks.
- Reduction of temperature losses of cold blast during transfer of cold blast from blower to stove by providing insulation.
- Replacement of impellers and Modification in compressed air system to reduce power consumption

Ongoing energy conservation measures

- Conversion of existing fuels (Light Diesel Oil/Furnace Oil/Propane) in SMS cojet systems, Caster ladle preheaters, Tunnel Furnace -burners, Sinter plant-ignition system, Blast Furnace aux-coal injection firing system, flare stack etc. by Regasified Liquefied Natural Gas (RLNG).
- Conversion of 16 TPH boiler for BF gas firing at Blast Furnace
- Installation of variable speed drives in Blast Furnace etc.

Projects considered in near future

- Installation of BF gas based power plant
- Installation of highly efficient Top pressure Recovery Turbine (TRT) for power generation
- Hot charging to SMS to reduce power consumption

MUKAND LTD.

Energy Management Report

Power and Fuel consumption	April-September 2009	2008-09	2007-08
Electricity kwh/tonne	538	571	488
Furnace Oil litre/tonne	53	60	54

Remark: Due to measures taken as described below, the electricity and furnace oil consumption has decreased in the current year as compared to the previous year. However, there is increase in electricity consumption as compared to 2007-08 mainly due to change in product mix and lower capacity utilization.



Power and Fuel consumption

Steel Plant:

To reduce electrical energy consumption:

- Process cycle time reduced to avoid heat dissipation and re-heating of liquid metal.
- Steel melting process was modified to replace electrical energy by oxygen blowing, de-slagging and chromium addition.
- Use of Energy Efficient AC Motors for new Roughing stand in place of DC motor.
- Installation of Variable Frequency Drives in the cranes and in new roughing stands.
- Installed LT Capacitor 2.4 Mega Volt Ampere at load end to improve power factor and reduce losses.
- Automatic switching off of street lights.
- Installed Automatic Temperature controller for cooling towers.
- Installation of CFL tubes of 28 Watt in place of 40 Watt in office and canteen area.

Expenditure on Environmental Pollution Control and Waste Management

Description	Total Expenditure (Rs. in lakh)		
	2007-08	2008-09	April-December 2009
Water Pollution (Including Operation and Maintenance)			
■ Pickling Effluent Treatment Plant.	391.81	335.97	179.10
■ Non pickling Effluent Treatment Plant.	3.35	10.66	5.77
Air Pollution	28.41	44.28	10.8
Greeen Belt Development (Including Gardening)	12.00	17.52	12.79
Solid and Hazardous Waste Management	24.91	19.57	14.26
Others (Energy consumed by pollution control facilities)	165.84	150.45	110.33
Total	**625.84**	**578.45**	**333.05**

Total cost of Production (Rs. in lakh)			Expenditure on Pollution Control (%)		
2007-08	2008-09	April-December 2009	2007-08	2008-09	April-December 2009
161000	215267	119025	0.33	0.27	0.28

Solid Waste Management

Non-Hazardous Solid Wastes:

Details of waste	Generation Quantity	Mode of Disposal (Metric Tonne/Year)
Furnace slag*	14760	Disposed off as land-fill
Muck broken refractory	295	Sold to outside parties
Scales	385	Sold to outside parties.
Process Dust	1400	Recycled back to the Steel melting Furnace for re-melting

- We have been in continuous touch with various industries like cement manufacturers for recycling/ re-use of Furnace slag.

Hazardous Solid Wastes:

Haz. Waste category as per Sch. I	Type of waste	Generation Quantity (Metric Tonne/Year)	Mode of Disposal
3.3	Tank Bottom Sludge	147.51	Authorised re-processor
5.1	Spent Oil	56.03	Authorised recycler
12.1	Acid, Acid residue, Acid mixture	816.28	Authorised regenerator or Common Effluent Treatment Plant (CETP)
12.0	ETP sludge	858.09	Common Hazardous Waste Management site



NEELACHAL ISPAT NIGAM LTD. (NINL)

Energy Management:

- Company has taken various measures to minimise the energy consumption. The effect of this has resulted in less heat and power consumption in Blast furnace and Sinter Plant, less heat consumption in Power Plant and reduced in CO gas flaring in Coke oven as compared to last year.
- Heat consumption in Blast furnace was 527 Mcal/tHM in 2007-08, which was reduced to 522 Mega calorie/tonne of Hot Metal in 2008-09 and to 409 Mcal/tHM during April-September 2009.
- Power consumption in Blast furnace was 44.1 kwh/tHM in 2007-08, which decreased to 42.3 Kilo Watt Hours/ tonne of Hot Metal in 2008-09 and to 39 kwh/tHM during April-September 2009.
- Power consumption Sinter plant was 62 kwh/tonne Gross Sinter in 2007-08, which went down to 59 kwh/tGS in 2008-09 and 57 kwh/tGS during April-September 2009. Heat consumption in Sinter plant also went down by 2 Mcal/t GS in April-September 2009 as compared to 2008-09.
- Similarly heat consumption in Power plant which was 910 Mcal/tonne steam generation in 2007-08, went down by 109 Mcal/tonne steam generation during 2008-09. During April-September 2009, heat consumption further reduced by 29 Mcal/tonne steam generation to 772 Mcal/tonne steam generation.

Environment Management and Solid Waste Management

Pollution Control Measures

Air Pollution Control

- In order to assess the impact of plant activities on environment, Ambient Air Quality is being monitored at four stations for the parameters as laid down by Central Pollution Control Board. The parameters are well within the standard.
- Quality of Stack emission is being monitored regularly for 4 major stacks. The parameters have been found well within the standard.

Water Pollution Control

The effluent treatment plant is being operated efficiently and parameters are regularly monitored. The quality of effluent discharged from the plant meet the standard for all the parameters. However, the level of cyanide in treated offluent at Coke Oven Biological Oxidation and Dephenolisation (BOD) Plant remain high. Efforts have been made for improving the performance of the BOD Plant.

Noise Level

Various measures during design stage have been taken to reduce the noise pollution include reduction of noise at source, provision of acoustic and suction side silencers. In some areas where due to technological process, it is not fasible to bring down the noise level within acceptable limits, such area have been isolated from the operating personnel. Noise level in critical areas is regularly monitored and current measures level of noise is around 72 dB (A) on an average against standard of 75 dB.

Action taken for control of Pollution:

- All the Air and Water pollution facilities are being operated continuously.
- Treated Effluent from BF, Gas Cleansing Plant (GCP) are recycled completely. The treated effluent separated in BF Sludge ponds are completely reused for gardening purpose.
- Third party monitoring of Ambient Air Quality (AAQ), Stack Emission and Fugitive Dust emission is being carried out on regular basis.

Solid Waste Management

- Solid Waste Material i.e. BF Slag is of very good quality; as such entire quantity generated is sold out to cement manufacturer.
- Dry sludge generated in Sludge Pond of GCP-Effluent Treatment Plant (ETP) is rich source of iron as such it being completely recycled in Sinter Plant. We do not have inventory of these waste.



- During operation of By-Product Plant, about 20-30 metric tonne/per month of Decanter Sludge is generated from tar decanter in Gas Condensation Plant. This sludge contains Coke dust mixed water tar. The Decanter Sludge is completely recycled after mixing with Coal dust to Coke oven batteries. It is not discharged into the ground.
- The Flue Dust from Blast Furnace is collected in Cyclone Separator and recycled back to Sinter Plant.
- All the fine dust collected in Dust Extraction System installed at Junction Houses and Stock House are recycled back to Sinter Plant as raw material.

Quantity of solid waste *i.e.* BF Granulated Slag generated vis-a-vis sold is furnished below:

(Unit in tonne)

Year	Generated	Sold
2007-08	177974	187006
2008-09	209722	236195
2009-10 (April-September 2009)	109033	63900

Expenses on Pollution Control Measures for the project till 30 November, 2009 is Rs. 170.41 crore including Plant and Machinery.

JINDAL STEEL AND POWER LTD. (JSPL)

Energy Management:

a) Specific Energy Consumption (SEC) during the last three years:

Financial Year	SEC(Gcal/tcs)
2007-08	7.68
2008-09	7.25
2009-10 (April-September 2009)	7.17

b) Measures taken/being taken for reduction in energy consumption and the future plans to this effect:

Project description	Achievement of energy savings per year basis				
	Electricity	Fuels*			Total savings in (Rs. in lakh)
	(lakh kWh)	Coal (tonnes)	Furnace Oil (kL)	Total (fuel) in (MTOE)*	
BF gas firing in waste heat recovery Boiler	396			34056	982
Installation VFD drive in ID fan	6.96			599	17.28
Installation of energy saver lighting transformer	2.37			204	5.89
Energy saving in Illumination system	3.14			293	7.79
Energy saving in roots blower	1.98			170	4.93
Replacement of Petro fuel by Petroleum Gas			14517	13065	400
Efficiency improvement of DRI-2		77262		37858	695

** MTOE - Metric Tonne Oil Equivalent.*



Two lighting transformers (Beblec) installed in the Turbine Generator area of 2*25 MW and 3*25 MW power plant. This rationalized and maintained the voltage level close to 230 Volt and saved electrical power of 30kW/hour.

New Producer Gas Plant (PGP-3) of capacity 22,750 Nm^3/hr was installed. In the FY: 2008-09, additional 116133 Th Nm3 producer gas was utilized in plate mill and thus avoided and replaced use of petrofuels and thus equivalent cost saving was achieved.

Note: In the same financial year production of plate mill has also increased from 2,39,455 tonnes to 5,58,040 tonnes respectively where Furnace Oil is being used. Variable Frequency Drives (VFD) installed in Inward Draught (ID) fan No.-1 of 2*25 MW power plant. The detailed specification with energy saving achieved is given below:

	Unit	Design	Operating (with damper control)	Operating (with VFD control)
Stating torque	$Kg-m^2$	2200	2200	1600
Power	kW	300	222	134
Inlet pressure	mmWC	-260	-100	-101
Outlet pressure	mmWC	30	30	30
Flow	M^3/sec	77.43	67	68
Damper open	%		35	100
Speed	rpm	986	986	821

Highlight of pollution control measures during the year

- Pollution control system up-gradation of mini blast furnace
- Dry fog dust suppression system installed in raw material handling section and day-bin-II of DRI - II
- Installation of bag filter for furnace work zone area of Steel melting shop is under process.
- Bag filter installation under process in ground hopper of Steel melting shop
- Installation of Effluent recycling system - II.
- Installation of Effluent Recycling system III under process
- Dry fog curtain installed at Steel melting shop slag yard.
- Installation of high concentration slurry disposal system in Power Plant
- Initiated rainwater harvesting by roof water harvesting in office building, recharging structures in airstrip drain and recharging the defunct bore-wells
- Installation of solar lighting system to promote renewable source of energy.

The amount of money spent on pollution control and waste management for the last two financial years and in the current year

Budget allotted for environment management, green belt development and housekeeping during the last two years and the current year.

Year	(Rs. in crore)	Year	(Rs. in crore)	Year	(Rs. in crore)
2007-08	18.19	2008-09	20.88	2009-10	23.90



CHAPTER VIII

DEVELOPMENT OF INFORMATION TECHNOLOGY

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 2003 servers; Pentium based client systems, a Scanner for document imaging operations and a heavy duty laser printer. In addition to these, the centre is also equipped with Local Area Network (LAN) equipment such as switches and hubs, which serve as a backbone for accessing information on Ministry-wide Local Area Network (LAN), Internet as well as operating Intranet based applications in the Ministry
- Apart from NIC Central facility, about 160 Pentium based client systems capable of handling present day Windows based software and Office automation suits are operational with Officials and Desks/Sections in the Ministry.
- A LAN of about 160 nodes is operational in the Ministry and is being extensively used for:
  - Electronic Dak and Diary
  - Sharing of files/documents
  - Collecting information/material on Annual Reports, Parliament Questions, Pendency, Tracking and Monitoring Applications (VIP References, Public Grievances, Parliament Assurances, Position of Vacant Posts, ACC approvals, Review/Appeal cases, Draft Audit Paras) from Sections/Desks
  - Compilation and collection of replies of Parliament questions from Desks/Sections in the Ministry and their onward transmission through E-mail to Rajya Sabha and Lok Sabha;
- Internet Connectivity for accessing the sectoral information has been provided to all officials/Desks/Sections in the Ministry.

E-Governance applications and promoting the concept of paperless office in the Ministry

- As part of the e-governance programme, a Ministry-wide Internet portal is operational for sharing and disseminating information through a Bulletin Board services for Notices/Circulars/Office Orders among the users of the Ministry;
- The portal facilitates Electronic Dak/Diary movement of documents and other pendency monitoring applications.
- The facility for downloading of forms for sanction of leave and advances, medical re-imbursement; Annual Confidential Report forms; Identity Card, staff car booking; Income Tax; telephone directory of officials/Sections / Desks in the Ministry, organization chart etc., are also provided on the Intranet portal for the Officials/Staff of the Ministry.
- Personal Corner for employee's salary statement, GPF statement. Bulletin Board Services for Office Memoranda, Office Orders and Office Circulars etc. are available on the intranet portal.
- The Internet portal also provides interface for accessing computer based systems in the area of tracking and monitoring of important references, parliament assurances, position of vacant posts and their status in the Ministry and it's PSUs, Pending Rreview / appeal cases, court cases, Audit Paras etc. to minimise pendency and improve delays in decision making
- 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 fully implemented in the Ministry and it's PSUs. The system has been developed by Central Information Commission (CIC) as Central facility to all Govt. Ministries/ Departments/Sub-ordinate and attached offices/PSUs etc.
  - Centralized Public Grievance Redressal And Monitoring System (CPGRAMS) has been implemented for facilitating Public Grievances in the Ministry and its PSUs. The system has been developed by Department of Administrative Reforms and Public Grievances.
  - ACC Vacancy Monitoring System (AVMS) has been implemented for monitoring of vacancies in PSUs. The system has been developed by Department of Personnel and Training.
  - E-Service Book Electronic E-Service Book is being implemented in the Ministry as desired by Department of Personnel and Training(DoPT).



Ministry Official Website

- The Ministry's web-site (http://steel.gov.in) in bilingual format on Internet has been re-designed. It provides information about the Ministry, its Policies, Acts etc. Administrative Setup, Indian Iron and Steel Producers and Processors, Right to Information Act-2005, Annual Reports, Outcome Budget, Promotion of Research and Development, Tenders and Links to Ministry's PSUs has also been provided to give a wide coverage of information on the Steel Sector.

Video Conferencing Facility

- A Video Conferencing facility has been setup between the Ministry and it's PSUs to conduct important meetings, speed up decision making, improve use of executive time and to reduce travel cost.
- An Executive Video Conferencing System (EVCS) has been installed in the chamber of Secretary, Steel. The EVCS based on NICNET has been set up on the desks of all Secretaries to Government of India and Chief Secretaries of State Governments and Union Territories for inter-departmental consultations as an effective mode of communication in order to carry forward e-governance as practical and efficient tool.

JOINT PLANT COMMITTEE (JPC)

Phase I of Integrated Software system

In order to meet the growing demand for data, JPC has successfully implemented the Phase I of an online integrated system, which has enabled it to generate reports related to import/export within 10-15 days of the reference month. The present system incorporates daily input and brings forth daily reports. Numerous benefits have been recorded post implementation of this system:

- A remarkable saving in time thereby mitigating the delay in the compilation and publication of the data
- Monitoring of import/export is possible on a daily basis
- The reports may be taken in WORD, HTML and EXCEL format

The system will further enable generating additional reports like Month- Category wise import/export by quantity, Month-Grade wise import/export by quantity, Month-Section size wise import/export by quantity, Country- category wise unit price, Country- ITC wise unit price of imported category, etc. JPC's leased line BSNL connectivity is used to download EDI data every day from NIC server in New Delhi using FTP connection. Non-EDI data are collected through from ports/customs manually. Each month, a total of nearly 15,000 Bill of Entry and 15,000 shipping bill (including EDI and non-EDI system) are processed by JPC.

Phase II of the Integrated Software system

The 2nd phase comprises of production, price, stock and consumption. The system study, requirement, analysis and design phase is completed and trial runs are in progress. A multi-tier software, the system will enable faster data preparation and reporting system, with fast checking, status updates on receipt position, and a total of 35 different reports can be generated for month-wise, period-wise, region-wise, state-wise, unit-wise and segment-wise production data.

STEEL AUTHORITY OF INDIA LTD. (SAIL)

In order to maintain its position and achieve its business goals and objectives, SAIL has embarked upon various project initiatives within the organization for enabling SAIL's competitiveness in the market place. Information Technology (IT) is one of the key initiatives that SAIL has undertaken in this direction. Highlights in area of IT are as follows:-

Enterprise Resource Planning (ERP)

SAIL started process of implementing ERP and Bhilai Steel Plant (BSP) took lead in SAP-ERP implementation.

- In line with its vision, BSP has reshaped its business processes and systems through the implementation of ERP on 01/04/2009. Greater process and system integration has provided information visibility that can help the company adapt to business and market changes more quickly. ERP attempts to provide BSP with an integrated system for better revenue management and for exploring future business opportunities by ensuring end-to end and on-time information visibility.
- DSP has gone live on ERP from 01/10/2009 and majority of processes in 6 modules undertaken been rolled out and stabilized since go-live.
- ERP implementation is in progress at BSL and is scheduled to be live on 01/04/2010. CMO and RSP will also start ERP implementation process in January-February 2010.



Leveraging Information Technology is a thrust area in SAIL : Enterprise Resource Planning (ERP) implementation is in progress at Bokaro Steel Plant (SAIL).

- Unified Codification System is being implemented in SAIL in the areas of Material, Party, Product and Services codes.

Manufacturing Execution Systems (MES)

- BSP w.e.f. 10.11.2009 has also started its implementation of MES, an Industrial IT tool for improvement in Production Scheduling and Optimization of manufacturing operations in Steel Melting Shop 2, Plate Mill and Rail and Structural Mill. M/s POSDATA has been selected as the Implementation Partner.

Networking

- Wide Area Network (WAN)
  - SAIL has installed and commissioned MPLS -VPN based WAN at its 23 Locations across India. The plants and units are connected to secure and reliable MPLS - VPN with bandwidth ranging from 512 Kbps to 8 Mbps. The MPLS-VPN is running on fibre optics. Various applications such as Primavera, EPMS and Mailing are running through the MPLS-VPN network.
  - New IP address scheme implemented at all plants/units of SAIL for fast and trouble free accessibility of data.
- Local Area Network (LAN)
  - Initiative has been taken to install and commission layer 3 distributed LAN along with Wi-Fy connectivity with latest network security systems for SAIL Corporate office.
  - Proactive network security and Anti - virus Solution for Desktops and servers implemented at SAIL, Corporate office.
  - At Salem Steel Plant, Plant wide Fiber Optic network with 400 nodes and 2 Mbps MPLS- VPN Reliance link has been established.
  - Connectivity of RMD HO with Kiriburu, Meghahatuburu, Gua, Barsua and Kalta on 2mbps leased line circuit established.

Internet

- A secure internet connectivity of 4 Mbps bandwidth through optical fibre commissioned at SAIL, Corporate office.
- SAIL employees have been given access to 'Employees Performance Management System' (EPMS) through internet cloud.



E-commerce

- **E-procurement System (EPS)**
  EPS was implemented initially at BSP and RSP in 2006-07 and subsequently at all other plants to facilitate reduction in lead time of acceptance of tender and expedite exchange of information between SAIL and vendors in a secure and transparent manner.
- **E-Buying (e-procurement through Reverse Auction) :**
  With the benefit of transparency in negotiation and purchasing at best available market price, SAIL was the first PSU to implement E-Buying in 2001-02. The transaction has grown steadily from Rs 19 crore in 2001-02 to Rs 1646 crore in 2008-09. In the current year, e-procurement worth Rs 1788 crore has been transacted.
- **E-Selling (sale through Forward Auction)**
  E-selling started in SAIL in 2002-03 and has increased from 53 crore in 2002-03 to Rs 3105 crore in 2008-09. In the current year , e-selling worth Rs 985 crore has been transacted.

Tender Website

Tenders and related information are being published on website for easy access and download by interested vendors for wider advertisement and increased competition.

E-payment

- E-payment of salaries to employees in SAIL is being done through SBI and ICICI Bank
- Provided facility of E-payment to suppliers

Video Conferencing

- Video Conferencing system at all 33 locations in SAIL was earlier running on ISDN BRI and PRI. Now Video Conferences are conducted using the IP protocol through MPLS-VPN network. The performance, clarity and quality of the Video Conference has improved tremendously. Video Conferences are now conducted for longer durations without any disturbance or interruptions.

Project Monitoring

- SAIL has embarked on a major expansion program to almost double the current capacities in all the Plants simultaneously by making massive investment. Most of the SAIL Plants have either tendered out the projects or have already selected the supplier for implementation. For monitoring and controlling the execution of Projects, an On-line Project Monitoring System based on Primavera Software has been installed across SAIL adopting Centralized Architecture. The Monitoring System is having Central Servers at SAIL Corporate Office and 205 Nos. of data feeding terminals at plants site/units connected through bandwidth of upto 4 Mbps. All the Activity Networks of Projects have been digitized into the System. The System has been rolled out and is under stabilization. For On-line and Real-time monitoring of Projects, updating of the progress of various Projects using the System has already been started. For using the System, 415 executives have been imparted with comprehensive training across SAIL.

New Software Applications Developed at various Plants/Units

Corporate Office

- On-line 'Employees Performance Management System (EPMS)' for all executives of SAIL was successfully implemented for filling up Key Performance Area, Development Needs, Performance Diary, Mid Year Review, Online Performance Review Discussion, Assessment of Final Review, competencies and Assessors, Low level and High Level Performance Review Committee. Central Database is built for all the executives of the Plants/Units.
- Historical Wagon Information is captured centrally at Corporate Office from Centre for Railway Information System (CRIS) Server and made available to all SAIL units for their MIS reports with the help of Online Freight Operation Information System (FOIS).
- On-line applications were developed for Tour Approval and Advance, Leave Workflow for all employees of Corporate Office, Salem Group Insurance, Vigilance, Daily Profitability and SAIL-wide Product-wise Costing.
- Homepage for Vigilance, Indirect Tax, Portal for Steel Business Scenario, Website for "Jigyasa", and System for Birthday Greetings was developed and linked on Corporate Office Portal.
- Bilingual Vouchers and Cheques were developed and deployed.



- Computerization done for Fringe Benefit Taxation System, Recruitment system for Management Trainee Technical (MTTs) and Management Trainee Administrative (MTAs), Generalized Bill Processing system for all departments of Corporate Office.
- SAIL Accounting System was upgraded to accommodate erstwhile Bharat Refractories Limited accounts.

Other Plants/Units

- At Bhilai Steel Plant (BSP), the speed of the 'Local Area Network' (LAN) has been enhanced from earlier 622 Mbps to 10 Gbps. Interactive web based portal was developed where any employee can raise his query on-line (Both English/Hindi) on personnel related subject. The query will be answered by the respective Personnel Officers (POs). The Central Provident Fund (CPF) Portfolio Management System developed and implemented to cater to the investments made by CPF Section. Launching of e-Sahyog, a web-portal facilitating employees to view their e-Payslip, past payments, attendance, Basic pay fixation, Direct Saving data, up-to-date loans' and advances' balances, SAIL Employees Superannuation Benefit Fund (SESBF) balances and electricity bill details. Other online systems like on-line EL encashment, Online House maintenance allowance, Display of employees Photograph on Web have also been developed. The online and readily available wealth of information enables employees to focus on work resulting in increased productivity.
- At Rourkela Steel Plant (RSP), Knowledge Management Portal and RSP Portal have been launched. Ispat General Hospital Bio Chemistry reports have been made available on RSP Intranet directly from Auto Analyser for viewing by employees and doctors.
- At Bokaro Steel Plant (BSL), merging of Kolkata office Payroll with BSL Payroll was done. On-line systems have been developed for credit of service tax and Value Added Tax, material issue pricing for stores and for works contract management.
- At Durgapur Steel Plant (DSP), commissioning of data interface between Process Control and Enterprise Resource Planning systems. Development of web based online XYZ and ABC analysis for different material groups on DSP intranet.
- Salem Steel Plant's Intranet 'thagaval' has been established. Link has been provided to Management Training Institute (MTI), Ranchi's intranet.
- At IISCO Steel Plant (ISP), Gate Pass Management System and computerized entry/exit of materials through gates developed. Computer education at three company schools introduced.

Web Portal being inaugurated at Rourkela Steel Plant, SAIL.



- At CMO, software for On-line E-Bid system for International Trade Division (ITD), Conversion Agent module, Warehouse module, Deemed export, Dealer module developed.
- At RDCIS, following projects were taken up for plants:
  - At SMS-II, RSP: A data communication system has been designed for obtaining process data from existing PLC to Oracle data base server. This is required for running a BOF model which will control the process parameters.
  - At HSM, BSL: The existing network is extended up to MTL by adding network switch. A micro structure model residing in Level-3 computer shall predict the mechanical properties and this shall be seen from MTL
  - At Sinter Plant, BSL: New permeability control system has been developed which facilitate automatic addition of water to control permeability of sinter.
  - At Sinter Plant, RSP: New permeability control system has been developed which facilitate automatic addition of water to control permeability of sinter.
  - At Refractory department, RSP: Post implementation software support provided for Integrated Refractory Information System at RSP
  - Apart from all the above activities RDCIS developed an Software for computerisation of asset accounting and Project accounting and an Intranet based web application to access the information and knowledge base available at RDCIS. It has the provision to capture and share explicit as well as tacit knowledge. This portal has additional facilities like Technical Forums, News, Software Downloads, Formats, Manuals, Circulars, Office Orders, Telephone Directory etc. promoting transparency and improved on-line communication at RDCIS.

RASHTRIYA ISPAT NIGAM LTD. (RINL)

Enterprise Resource Planning (ERP): RINL started the process of implementing ERP- Ukku Sankalp, to have a single transaction database which is shared, updated across the entire organization for seamless integration and improving internal efficiencies. Implementation of ERP is a giant step forward taken to enable RINL to meet the competition in the future.

E-initiatives

Provision for multi-currency bidding was incorporated in reverse e-auction system to handle import purchase cases. The project of providing Information Kiosks at various locations in the plant was taken up. Various Intranet Portals for Legal Affairs and Safety departments, QMS-MOU monitoring system etc. were launched. On-line Vendor Registration Module was also launched.

Security initiatives

To have security assurance related to IT activities in VSP, implementation of Information Security Management System was taken up as follow-up to the IT security audit conducted by an external agency.

Standards initiatives

In it's pursuit of process standardization and to match with international software development standards, VSP chose the Capability Maturity Model Integrated (CMMI) and underwent 'Assessment by the International Certification Authority'. In the final CMMI assessment, IT department was awarded prestigious CMMI Level-3 certificate from 'Software Engineering Institute' (SEI) of Carnegie Mellon University, USA.

Business applications implemented

Mill Scale and Scrap accounting module in Light and Medium Merchant Mill (LMMM) was implemented. TACTS (Town Administration Contracts Management) System was developed and deployed. Administrative Budget Monitoring System (ABMS) was extended to all outstation branches.

Infrastructure initiatives

Security appliance for email was implemented to control and thwart spam mails. Installations were completed for 'Expansion of Datacom network in Township'. The project work of establishing connectivity to Mines offices at Madharam and JLM was taken up.



Capability Maturity Model Integrated (CMMI) Level-3 was awarded to VSP, RINL in September 2009.

Process control initiatives

New SCADA (Supervisory Control and Data Acquisition) system was commissioned. The project work of up- gradation of WRM Process Control System and MMSM Process Control System were taken up. Online Graphical Display of materials existing in the furnaces was implemented in Rolling Mills. AMR projects of SMS Converter Level-2 Automation, CCM-2 Level-2 Automation and CCD Expansion Level-2 were taken up. Yard Automation in Bloom Storage Yard was also taken up.

Special initiatives

Thrust was continued on integrating the PPC application with production control computers of rolling mills. WRM PRODCC-PPC Integration was completed. Corporate Business Intelligence System (CBIS) - a business intelligence package was continued wherein reports were generated for all business value chains in the System using Data Warehousing technology. Implementation of Document Management Solution/digitization of documents for VSP was taken up. Enterprise Risk Management System was developed and being deployed. Implementation of Enterprise MS Project solution and Enterprise Email Archival Solution were taken up.

NMDC LTD.

- e-procurement is being done regularly through A.P. Government portal
- Development of Integrated web based software package for HRMS and FAS - 9 modules have already been completed and implemented. Remaining modules are under testing.



- Web enabled online IMS is implemented in Kirandul and Donimalai. It is under implementation in Bacheli.
- Facility for lodging of complaints provided by public and tracking the status is provided on Company's website (www.nmdc.co.in)
- Online submission of Annual property returns by Executives for the year 2009 is facilitated.
- Videoconferencing facility between HO and Projects is established and is in regular use.
- Backup VSAT connectivity established between HO and Projects

MANGANESE ORE (INDIA) LTD. (MOIL)

The Company has set-up a full-fledged Systems Cell in order to ensure an effective Computerisation of all the functional areas of the Company. At present the system department has 7 executives and 11 non-executives members. The Department is headed by Director (Commercial). In order to ensure an adequate IT infrastructure, steps taken by the System Department are as under:

- Installation of 180 no. of Computers, out of which 78 Computers are at Head quarter and 102 Computers are distributed in Maharashtra and Madhya Pradesh Mines.
- Designed, developed and implemented Computer based applications to meet Computing and Data Processing needs of the various Departments viz, Sales and Marketing, Purchase and Stores, HR and Personnel, Production and Quality and Cost and Finance of the Company.
- Local Area Networks (LAN) on WINDOWS-2003 Platform are in place at HO as well as at two of the Major mines viz. Balaghat and Dongri Buzurg. LAN development at other mines has also recently been completed.
- Designed, developed and hosted a dynamic internet website on NIC Server.
- Designed, developed and hosted a dynamic intranet website on in-house MOILNET Server.
- For effective sharing of databases/information and other resources on regular basis all the remotely located production units and HO are connected through VSAT.
- Conversion of legacy systems to a client server environment is in progress.
- For continuous knowledge acquisition, e-mailing and for data transfer facilities, all the concerned officials have been provided with internet connection through a shared 2 mbps broadband line.

MSTC LTD.

MSTC has made a number of developments as far as IT infrastructure is concerned. The following developments have taken place:

- Achieved ISO 27001 certification
- Embedded digital signing in e-procurement portal
- Embedded time stamping in e-procurement portal
- Became Sub-CA (Sub Certifying Authority) of TCS for enabling digital signatures.
- Performed penetration and vulnerability testing of applications and systems.
- Auto wake-up of disaster recovery site in case of primary site failure.
- For increasing the availability (i.e. uptime) of e-commerce portal, upgradation of e-commerce server has been done by installing Redundant Array Independent Disk (RAID), fail over UPS and redundant network switch.
- For the purpose of minimising security threats from virus and other malicious code, gateway anti-virus has been installed.
- Leased line has been enhanced from 16 Mbps to 20 Mbps.
- Migrating to AIX from SUSE LINUX operating system.

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.
- The installation of Wide Area Network (WAN) and implementation of Enterpreneur Resource Planning (ERP) is under progress.
- Fulfilment of statutory compliance of the company such as PF, income tax, tendering, e-filing, etc.
- Posting of information regarding implementation of Right to Information Act on company's website.

HINDUSTAN STEELWORKS CONSTRUCTION LTD. (HSCL)

The company has its own website at www.hscl.co.in through which it conducts its business activities in a transparent manner and complies with all statutory guidelines in the Right to Information Act.

MECON LTD.

MECON's offices at Ranchi, Bangalore and Delhi are equipped with state-of-the-art hardware, network and various Engineering software tools like AUTOCAD, AUTOPLANT, PDS, ETAP, CEASER, PVLITE 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 modules like HR, Corporate Finance, Project Finance, MIS, Knowledge Management, e-Archive are in use for day to day activities.

MECON is also using Video conferencing system extensively for discussions and review meetings with both among various offices of MECON and with clients/vendors.

SPONGE IRON INDIA LTD

The EDP Centre in Sponge Iron India Limited is under the control of Finance and Accounts Division at Plant Office, Paloncha. EDP Centre will carryout the IT activities for development of application software and other related computer activities. The SUN FIRE 280R System from Wipro Ltd., was installed in EDP Centre.

The configuration of the Server is given below:

1x900 MHz Ultra Sparc - III Cu Processor, 1GB RAM

1x36 GB Hard Disk Drive, FCAL disk drive

Operating System	:	SOLARIS - 8
Software	:	ORACLE 9i

Internet Developer Suite is used as front end tool to develop the application software. At present SUN FIRE 280R SERVER is connected to Production, Raw Material and Purchase Departments for data feeding, validation and generation of various reports and MIS reports also.

In addition to the above, PCs are used as standalone in Marketing, Stores, Finance and Accounts, Sales Departments and Weigh Bridge Section for carrying out the data feeding, generation of various reports using FOXPRO as tool for development of application software.

Sponge Iron India Limited, other departments like PandA Department, Time Office, Safety Department and GM's Office also using the PCs to carry out the various works. The LEAP OFFICE 2000 software was installed in all PCs as per the directions of the Official Language Section for generation of various reports in Bi-lingual or multi-lingual.

KIOCL LTD

The Company has amended the Object clause of Memorandum of Association in order to venture into IT/BPO and other related areas. The Company is exploring the possibility to enter into this venture.

BIRD GROUP OF COMPANIES (BGC)

Online tendering of Iron Ore and Manganese ore is being conducted through e-auction mode. In case of OMDC e-payment of salaries is being done through SBI, e-payment is also used in case of Tax-payments.



CHAPTER-IX

SAFETY

Safety is an important aspect in the 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. This chapter highlights the emphasis on safety by the PSUs under the Ministry.

STEEL AUTHORITY OF INDIA LTD. (SAIL)

Averting accidents in any manufacturing industry has been an area of constant concern area. In case of SAIL, the concern assumes a far greater significance because of the existence of a large workforce that is engaged in the task of producing Iron and steel; a task, that has inherent occupational hazards. The issue of safety in work place, is therefore a natural a priority in our operational ethos.

SAIL strongly believes in maintaining ethical and social standards while discharging its Corporate Social Responsibility. It gives adequate emphasis on safety of human resources and assets of the company along with production, productivity, cost reduction and quality.

Ensuring accident free working in steel plants has been one of the prime priorities of SAIL Management.

At SAIL, safety is monitored at the highest level of management i.e. Chairman and Director's level as well as the Chief Executives of respective plants/units to provide impetus on inculcating safety awareness and improving human behaviour towards safety. Safety is discussed as the first item in all appropriate forums, and directions are issued for adoption of all requisite measures to bring about continuous improvement in safety standards. This demonstrates the paramount concern of the management towards this vital issue.

SAIL has a well defined safety policy, which not only establishes organizational commitments towards safety of its employees but also of those associated with the company. In addition, plants implementing OHSAS-18001, an advanced Safety Management system, also have an 'Occupational Health and Safety Policy'. All efforts are directed in consonance with the policy and are perused in a consistent and sustained manner by all plants/ units.

In SAIL, safety is taken care of at corporate unit and shop levels. A Corporate Safety Unit named SAIL Safety Organization (SSO) exists to coordinate, monitor, promote and enhance the operational/fire safety activities undertaken at different plants/units, and to provide appropriate corporate thrust on safety management in the Company. In addition, each plant/unit of SAIL has full-fledged Safety Engineering Department (SED) to look after safety management of the respective plant/unit. Safety at shop floor is closely monitored by Departmental Safety Officers.

A Safety Souvenir being released during Annual Mines Safety Week in SAIL.



Following efforts are being made in different plants/units as well as at SSO level:

- Safety and Health provisions enlisted in various applicable statutes, standards, norms, procedures etc. are fully complied with.
- Safety is designed and built into every job before execution. Safety aspects have been incorporated in Standard Operating Practices (SOP) and Standard Maintenance Practices (SMP).
- Annual Performance Plans (APP) in the areas of Safety and Fire services are formulated and review of APP implementation is done by plants and SSO.
- Internal and external safety audits of major departments particularly in hazardous areas are conducted as per schedule and points arising from these audits are liquidated. Pre-audit compliances are being ensured before taking up re-audit of particular department.
- All the necessary Personal Protective Equipment (PPEs) like safety shoes, safety helmets, hand gloves etc. are provided free of cost to all regular employees. PPEs are supplied by the contractor to their workers as per terms of contract.
- All major capital repairs/shut downs are closely monitored round the clock to prevent accidents.
- Regular preventive inspections of unsafe acts and conditions are done on the basis of checklist and corrective actions are taken.
- Inspection of cable galleries and underground cellars are done and their upkeep is ensured to negate chances of fire.
- Work-permit/Protocol system are in vogue for hazardous jobs where multiple agencies are involved like jobs on Gas lines, Steam lines, Pressure vessels, Lifting equipments, Electrical installations, Electrically Powered Machines, Hydraulic lines, while working in confined space, working at height etc.
- Job/area specific safety communications are displayed at vulnerable locations to caution employees about hazards and take precautionary measures. Periodic campaigns are conducted to inculcate safety awareness up to grass root level. Regular publications are being brought by SSO and plants/units in the form of Journals, Manuals, Reports, Booklets etc containing wide range of information pertaining to Safety, Health and Environment.
- As a new initiative, training programmes on 'Behaviour Based Safety' is being organized at SSO, and plants/units to bring about a shift in the existing mind set of employees towards safety.
- On-site disaster management plans have been prepared and mock drills as an emergency preparedness are conducted regularly.
- All accidents are investigated and remedial actions are taken to prevent their recurrence.
- A number of actions are taken based on cause-wise analysis of accidents by using area-specific solutions. Safety officers and Line managers are being exposed to the findings of such analysis so as to enable them to augment the thrust on preventive measures. Some of these areas include:
  - Contractor workers' Safety
  - Working at Height
  - Hit/ Caught/ Pressed between moving objects/ machines
  - Rail- Road Safety
  - Protection against hot substances
- Efforts are undertaken to ensure clear and specific communication between different agencies involved in jobs to avert chances of any confusion/ error and consequent mishap.
- Safety training by Safety Engineering Department has been made mandatory for contractor workers before issue of gate pass to them. In addition, job specific safety training is imparted at site by the executing agency before starting the job.
- HRD intervention in the area of safety covers Heads of Departments, Line Managers and Departmental Safety Officers. Besides, area specific workshops are conducted at different locations on important topics like gas safety, rail/road safety, safety in iron, steel and coke making etc for sharing best practices in safety management.
- Skill oriented, job-specific safety training is being imparted to various target groups like Crane Operators, Loco Operators, Porters, Riggers, Welders, Gas Cutters, Electricians, and Heavy Earth Moving Equipment Operators etc.
- Safety aspects are being given special attention during the ongoing modernization and expansion of SAIL. Safety officers are being deployed to ensure safety during implementation of projects at site. Contractor safety audits are being undertaken, Training program on safety during project execution is being organized for project personnel.



A demonstration is being conducted in a SAIL plant during National Fire Services Week.

- Safety awareness among housewives and school children is being generated through various workshops, campaigns, competitions etc.
- The movement of heavy vehicles is restricted during shift change hours to avoid any road accident. No person riding two wheelers is allowed entry inside plant premises without crash helmet. In addition, surprise checks are being carried out for ensuring compliance.
- A bipartite forum named Joint Committee on Safety, Health and Environment for Steel Industry (JCSSI) headed by Director (Personnel), SAIL as its Chairman and Executive Director (Safety), SAIL as Vice Chairman, and having representatives from Steel Plants and Units of SAIL, RINL, TISCO, Ispat Group, ESSAR, NINL and Central and Plant-level Trade Unions is functioning at National level. With a view to inculcate safety consciousness, JCSSI organizes seminars, workshops, training programmes and safety competitions for member organizations. JCSSI with the co-operation and support of Trade Union representatives formulates policies and guidelines for its member plants and monitors the implementation. The secretarial functions of JCSSI are managed by SSO at Ranchi.

RASHTRIYA ISPAT NIGAM LTD. (RINL)

Safety is given due importance and the implementation of OHSAS 18001 has ensured a safe work culture in the organization. RINL-VSP was successfully certified for the latest version of OHSAS 18001:2007 in May '09. Continuous efforts on the implementation of safety standards, monitoring of risk control and other proactive measures have resulted in reduction / elimination of potential hazards.

More than 2500 Nos. of Hazard Identification and Risk Assessment sheets were prepared for fulfilling the OHSAS 18001:2007 certification criteria. Plant level mock drill was conducted at Crude and Finished Products Storage tanks of Benzol Plant in Jun '09 for testing the emergency preparedness of the plant in the presence of Jt. Chief Inspector of Factories and Inspector of factories. Comprehensive Risk Assessment (HAZOP, HAZAN, Emergency Planning, Safety Audit, etc.) activity has been awarded to an external agency and the work started in Sep '09.



The following proactive measures were also undertaken to inculcate safety awareness:

- Organization of interactive session between contract workers, contract supervisors and recognized trade union representatives on "working at height".
- Safety training programme on "Site safety and Road safety"
- Safety appliances exhibitions were organized.
- Kitchen safety programme was organized exclusively for women contract workers in which representatives of forum for 'Women In Public Sector' (WIPS) also participated.
- Campaign on "Hazards of using mobile phone while driving" was conducted.
- A lecture on "Construction Safety" by Jt. Chief Inspector of factories was organized covering In-charges of Projects and supervisors of contractors.
- A National Workshop on "Designing for Safety and Change Management" was organized jointly by Department of Factories and National Safety Council-AP Chapter during Dec 2009.

NMDC LTD.

NMDC has its training centres in all its projects. They are equipped with infrastructure as required under Mines Vocational Training Rules. These centres 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.

Mine Level Tripartite Safety Committee Meetings have been conducted in each of the Operating Mines. Except DMP, Panna all the projects have conducted the meetings this year. This meeting is conducted once in a year at project level with senior officials, Union Representatives and DGMS Officials in which Safety Performance and its appraisal is made and the recommendations are implemented. Tripartite Safety Committee Meetings are being held regularly once in a year at Head Office.

Safety committees have been constituted in every operating mine and pit 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 2009-10 upto December 2009 is 3.79 and 5.66 for the year 2008-09.

OHSAS 18001:2007 Certification:

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

OHS Activities:

Occupational Health Services have been provided with adequate manpower and infrastructure and are functioning in full-fledged manner at all the projects, headed by Qualified Doctors trained in OHS at Central Labor Institute, Mumbai.

Periodical Medical Examination under statute is carried out regularly in all the projects, with a planned programme. All the results are computerized and individual files are being maintained.

MANGANESE ORE (INDIA) LTD. (MOIL)

All the Mine working are being regularly supervised by competent Supervisors like Mine Mate, Mine Foremen and qualified Mining Engineers. Safety Inspections are also being carried out during the working shift by workmen, Inspectors, Safety Officer, Mine Manager and Agents. Internal Safety Organisation headed by General Manager (Safety) at H.O. Level is co-ordinating with Directorate General of Mines Safety (DGMS) and inspecting the mine time to time.

Regular Safety Committee meetings are held at mines where day-to-day safety aspects are discussed with the participation of workers representative. Unsafe acts and mine accidents are analysed in detail to avoid recurrences.



The accident statistics for 2008 and 2009 are given below:

Particular	2008	2009
Fatal	4	-
Serious	3	1
Reportable	10	8
Total	**17**	**9**

Regular occupational health check ups are being done as per the guideline of DGMS. The number of persons examined and tested for Initial Medical Examination, Periodical Medical Exam, Audimetry, Lung Function test for the year 2009 are as under:

IME	Cummu.		PME Cummu.		Audimetry Test Cummu.		PET Test Cummu.	
	Dept	Cont	Dept	Cont	Target	Actual	Target	Actual
Total	117	326	1135	1038	1164	999	1175	813

Safety policy for the Company has been crafted as per recommendation of 9th Safety Conference. This will further improves the safety standard of the mine. The Company has introduced study of Health Safety Management through Risk Assessment for Dongri Buzurg Mine and Balaghat Mine of the Company. Recommendations of the study are being implemented. Regular training is imparted to Workmen Inspector and Workers in the training Centre, Munsar regulary. All this concerted efforts have reduced the frequency of mine injury. Closed monitoring is being done regulary by Director and CMD to achieve high degree of safety standard.

MOIL has taken part in All India Mines Rescue Competition and has bagged the following prizes for the year 2008-09:

All India Mines Rescue Competition (2008-09)

Overall-Winner

Recovery Drill- Winner

Theory Test - Winner

Best Captain's Prize

Best Member's Prize

The following mines have been selected for **National Safety Awards:**

Mines	Category	Year 2007
Dongri Buzurg Mine	Longest Accident Free Period	Winner
Beldongri Mine	Lowest Injury Frequency Rate	Runner-up

FERRO SCRAP NIGAM LTD. (FSNL)

Special programmes on safety and allied areas are incorporated in the training calendar prepared for the whole year. Such programmes are arranged through National Safety Council and other such reputed agencies for the benefit of the employees.

In addition to the training programmes, safety day celebrations are also held in the company wherein safety debate competitions, etc. are organised and the employees participate in such competitions with great enthusiasm. Winners of such competitions are awarded suitable prizes.

Apart from the above, special training programme on Fire hazards and remedial measures, was organized, through the Fire Service Station of concerned Steel Plants for the employees, especially all the operators, in order to create awareness among them to save themselves as well as the equipment from fire accidents.

HINDUSTAN STEELWORKS CONSTRUCTION LTD. (HSCL)

HSCL has formulated safety code and adequate steps have been taken for its implementation. In addition, HSCL complies with all safety norms connected with construction activities. The company has full-fledged safety departments in steel plant units where more than 98% of its workmen are posted.



MECON LTD.

MECON has design and consultancy offices and does not have an industrial unit. However, at project sites all necessary safety related precautions are being taken and as a result no accident has been reported during the year.

SPONGE IRON INDIA LTD. (SIIL)

During the year, efforts were made to take measures required for Safety and Security of workforce in all areas. There were no major accidents reported during the year.

KIOCL LTD.

- Safety Departments are functioning effectively in all the locations. The Company gives utmost importance to the occupational Safety and Health of the persons working in the Company. Although the mining activity at Kudremukh mine has been stopped with effect from 01-01-2006 as per the Hon'ble Supreme Court verdict, regular safety inspections are being done to ensure safety and occupational health of employees engaged in upkeep and maintenance of mining equipments, essential services like water pumping (HEMM), essential services like water pumping, watch and ward etc.
- Workers participation in Safety Management System is one of the important criteria adopted by the Company. Safety Committees has been formed and workmens' inspectors have been nominated to improve the standard of safety in the work places. Protective Safety appliances are provided to all the employees to achieve zero accident goal.
- Safety inspections are carried out regularly by the Safety Officer along with the workmen's Safety Committee Members. Safety points are discussed in the Safety Meetings and suitable action is taken for implementation of the shortfall, if any and for improvement.
- Training programmes are being conducted for the contractual workers who are coming for dismantling the structures and other related works to inculcate Safety consciousness among them. Refresher training covering the area of working - First Aid Training, Fire fighting and Safety awareness Training programmes are conducted on need basis.

Training and Safety is a continuous process at KIOCL.

BIRD GROUP OF COMPANIES (BGC)

Mining companies under the Bird Group take safety measures according to provision of Mining Activity Act, Rules, Regulations and Guidelines towards safety of the 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 exhibition locally as well as regional basis. The employees have received prizes and awards by the Annual Mines Safety Week Celebration Committee of the region. Vocational training facilities have been provided to all the workers working in different disciplines and operational activities.



CHAPTER-X

SHIP BREAKING

INTRODUCTION

- Like many industries, the ship breaking industry has grown and expanded, in the past three to four decades, all over the world. The ship breaking industry supplies substantial quantity of re-rollable and scrap steel for the iron and steel industry. It increases the availability of semi-finished material, which otherwise would have to be produced by using the ore. Thus, it helps in conservation of natural resources.
- Ship breaking, as a regular commercial activity, started in some of the industrially advanced countries like the U.K., U.S.A. and Germany during the post World War II period. By 1960, the activity shifted from the industrialised countries to other areas in Europe and Far East. However, more than 90% of shipbreaking in the world during the last 10 years has taken place in India, Bangladesh, Pakistan and China.
- Private entrepreneurs handle the task of ship breaking in India. It is labour-intensive job and India having abundant human resource finds it a cost efficient activity. Till the sixties, ship breaking in India was confined mainly to dismantling of small barges and coastal wrecks. This activity grew into a full-fledged industry by 1979.

Location of present ship breaking activities

- Alang and Sosiya yards in Gujarat
- Sachana in Gujarat
- Mumbai
- Kolkata

Alang and Sosiya ship breaking yards: Alang and Sosiya are two villages situated on the coast of the Arabian Sea in the district of Bhavnagar in Gujarat where 90 % of the shipbreaking activity in the country is concentrated. The Ship Breaking statistics# during the last three years and current year 2009-10 (upto December 2009) are as under:

Year	No. of ships beached	Light Displacement Tonnage (LDT)* (in million tonne)
2006-07	142	0.76
2007-08	140	0.60
2008-09	267	2.00
2009-10 (upto December 2009)	293	2.3

** LDT is unit of physical weight of a ship*

 # Statistics as furnished by the Iron Steel Scrap & Ship Breakers Association of India.

Contribution of ship breaking

Ship breaking process is an industrial activity, which not only generates re-rollable steel but also helps create direct and indirect employment. Steel produced through the ship breaking route saves natural resources like iron ore, coal, etc. which are used for production of steel through integrated steel plants. The steel generated from ship recycling contributes to around 1% to 2% of the domestic steel demand. Some of the key points related with the ship breaking industry are:

- A population, both direct and indirect, of more than 1 lakh depends on the ship breaking industry.
- As ship plates need to be reheated only upto 1000ºC for re-rolling, the scale formation at this is minimal for re-rollers.
- Occurrence of physical defects like seams, internal cracks, porosity, slag inclusion and furnace burns are less frequent in shapes and sections re-rolled from ship plates.
- Improved ductility due to slightly lower carbon and freedom from inclusions allow more intensive cold twisting of rebars from steel obtained out of ship breaking.
- Fine grains of ship steel ensure greater resistance to corrosion especially surface pitting.

Inter Ministerial Committee (IMC) on ship breaking

- The Ministry of Steel is concerned with ship breaking as per allocation of work (please refer Annexure-I). Ship breaking is mainly carried out at Alang, Gujarat. More than one lakh people are employed in ship breaking industry.



A view of a Ship Breaking Yard at Alang.

Ship breaking industry also contributes to the availability of steel scrap in the country and also heavy revenues are received in the form of duty tax by the nation.

- The general issue of control and management of hazardous waste has been under consideration in the Hon'ble Supreme Court following the writ petition no. 657 of year 1995 filed by Research Foundation for Science Technology National Resource Policy. The applicant sought the implementation and other remedial measures in respect of Hazardous Waste (Management and Handling) Rules 1989 framed by the Ministry of Environment and Forests; and the general issue of control and management of industrial waste. The various State Governments/Central Ministries were affected in this case and Ministry of Environment and Forests (MoEF) was the nodal Ministry.
- During the course of deliberation, the Hon'ble Supreme Court issued various orders, the first important order being on October 14, 2003. The order mentions that an Inter-Ministerial Committee will be set up for shipbreaking activities. The Ministry of Steel set up an Inter-Ministerial Committee (IMC) vide an order of January 12, 2004 under the chairmanship of Additional Secretary and Financial Advisor with members of Ministry of Shipping, Ministry of Environment and Forests (MoEF), Ministry of Labour, Gujarat Maritime Board, Gujarat State Pollution Control Board, Central Pollution Control Board, Labour Association, Steel Scrap and Ship breakers Association etc. for the implementation of the Hon'ble Supreme Court Orders and other related functions. So far, IMC has held 11 meetings; co opted members of other organizations; discussed various issues pertaining to ship breaking industries and issued a large number of directions to implement Supreme Court Orders.
- The last meeting of IMC was held on 5.10.2009. Most of the issues discussed in the meeting relate to the safety and welfare of workers (viz. medical assistance, protection equipment, X-Rays from pollution environment, disease, housing facility etc.). The matters regarding health of workers and housing facility for them have since also been taken up with the Government of Gujarat.

Finalisation of the Code on shipbreaking activity

- The Hon'ble Supreme Court vide its order dated 17.2.06 directed to set up a Committee of Technical Experts on ship-breaking. Ministry of Environment and Forest (MoEF) set up the committee on 24.3.06 to be headed by the Secretary, MoEF, and experts from various other organisations/pollution control boards. The Committee made various recommendations which have been accepted by the Supreme Court vide its judgment dated 06.9.07.
- The Supreme Court vide its order dated 06.09.07 stated that the Government of India shall formulate a comprehensive code incorporating the recommendations and the same has to be operative until the concerned status are amended to be made in line with the recommendations. Until the Code comes into play, the recommendations shall be operative by virtue of the order dated 06.9.07. The code is under formulation in the Ministry of Steel.



CHAPTER-XI

WELFARE OF WEAKER SECTIONS OF SOCIETY

The Ministry of Steel and the public sector undertakings under it, comply with the Government guidelines with regard to welfare of weaker sections of the society. Statement showing the number of SC/ST/OBC/Ex-Servicemen/Employees as on December 31, 2009 in respect of Ministry of Steel is given below:

Representation of SCs, STs and OBCs in the Ministry

Group	No. of employees*				No. of appointments made during the year									
					By direct recruitment				By promotion			By other methods		
	Total	SCs	STs	OBCs	Total	SCs	STs	OBCs	Total	SCs	STs	Total	SCs	STs
Group A	36	4	0	0	-	-	-	-	1	-	-	-	-	-
Group B	96	13	7	2	1	1	-	-	-	-	-	1	1	-
Group C	53	11	4	2	-	-	-	-		-	-	-	-	-
Group D (excluding Safai Karamcharis)	61	26	5	5	-	-	-	-	1	1	-	-	-	-
Group D (Safai Karamcharis)	0	0	0	0	-	-		-	-	-	-	-	-	-
Total	246	54	16	9										

** Includes Personnel Staff of Hon'ble Minister of Steel and Hon'ble Minister of State for Steel.*

STEEL AUTHORITY OF INDIA LTD. (SAIL)

Steel Authority of India Limited consists of five integrated steel plants at Bhilai, Durgapur, Rourkela, Bokaro and Burnpur and three special steel plants at Durgapur, Salem and Bhadravati. SAIL Refractory Unit, Raw Materials Division with mines at Jharkhand, Orissa, Chhattisgarh and West Bengal; Central Marketing Organisation with network spread all over India and Ranchi based Research & Development Centre for Iron & Steel, Centre for Engineering & Technology and Management Training Institute are also part of SAIL.

SAIL plants are located in the areas where most of the peripheral population belongs to Scheduled Caste and Scheduled Tribe Category. SAIL in many ways has helped in development of SC/ST communities which are listed below:

- Since non-executives (which comprise nearly 86% of the total employees) recruitments are carried out mainly on regional level, a large number of SCs/STs and other weaker section of the society get the benefit of employment in SAIL.
- For project work and other temporary jobs, generally contractors employ workmen from the local areas, which again provide an opportunity for employment of local SC/ST candidates.
- Establishment of SAIL steel plants in tribal dominated areas has given a fillip to the economic activities thus benefiting the support population providing different types of services.
- 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.
- 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.



Benefits being extended in SAIL for welfare of SC/ST Community

Besides the measures adopted as per Government Directives, SAIL has undertaken several initiatives for the socio-economic development of SCs/STs and other weaker sections. Some of the important initiatives are as under:-

- At each of the main integrated steel plant location, one school has been opened to provide free primary education to the children of economically weaker section living below poverty line. They are being provided free uniforms, books and other stationery items besides mid-day meal to encourage them to attend the school.
- No tuition fee is being charged from SC/ST students studying in the Company run schools, whether they are SAIL employees' wards or non-employees' wards.
- SAIL awards 432 scholarships to encourage meritorious and deserving students. 132 of these scholarships are awarded to SC/ST students.
- SAIL plants have adopted 124 SC/ST students belonging to BPL families/ primitive tribes. They are being provided free education, boarding, loading and medical facilities for their overall growth.
- The Company has provided land for construction of school buildings in some of the Steel Townships as well as in other places for spreading education among the local population. Bokaro Steel Plant has allotted a 12 room hostel for SC/ST students.
- 51 tribal students are taught free of cost in company sponsored DAV school at Chiria.
- SAIL Steel Plants organize functions every year for celebration of birth anniversary of Dr. B.R. Ambedkar. Various programs are organized on this day to propagate the message of Dr. B.R. Ambedkar among the children and general masses
- SAIL has set up six sports academies viz. Hockey Academy at Rourkela, Athletics academy for boys at Bhilai, Athletic academy for girls at Durgapur, Football academy at Bokaro, Archery academy at Kiriburu Iron Ore Mines and Football academy at Burnpur. Continuous emphasis on sports activities has helped to develop players of National and International repute. SAIL also sponsors various major sporting events.
- A number of sports activities were organized in Mines area inhabited predominantly by Scheduled Tribes community - Chiria, Kiriburu, Rowghat (Football, Archery and athletics).
- SAIL RSP has established an Institute for Peripheral Development, which acts as the nodal agency for holistic socio-economic development in the peripheral villages, first of its kind in SAIL. The institute formulates policy and adopts strategy for an integrated socio-economic development in the Peripheral villages. These villages are mostly inhabited by Scheduled Tribe people. It liaises with different governmental and non- governmental agencies for technical consultancy and execution of field programs.
- Deepika Ispat Shiksha Sadan for under privileged children of Rourkela started from July 2007. At present about 100 children have been enrolled and are provided free education, dress, books and mid-day refreshment by SAIL RSP.

Special Recruitment Drive for SC/ST

Special Recruitment drives are being conducted on regular basis to clear the backlog vacancies. Out of 87 backlog posts as on 01.01.2008, 82 vacancies have since been filled up till December, 2009.

Other Important Information:

Internal workshops for Liaison Officers for SC/ST and other dealing officers of SAIL plants/units are conducted on regular basis through an external expert to keep them updated on the reservation policy for SC/ST and other related matters.

A separate grievance register is maintained for SC/ST employees at all plants/units.

On advice of National Commission for Scheduled Castes, SAIL SC/ST employees have taken initiative to form one representative body at each plant/unit by amalgamation of different outfits. SAIL SC/ST Employees' Federation has been formed at Central level also. Regular meeting are held with these representative bodies.

At Central level, meetings with the SAIL SC/ST Employees Federation are conducted periodically. The last meeting of SAIL management with the Federation was held on June 6, 2009. Beside, representatives of the Federation also interact with the middle management at central level on regular basis.



Representation of SCs, STs and OBCs in SAIL

(As on 31.12.2009)

Representation of SCs, STs and OBCs														
Group	**No. of employees**				**Number of appointments made during Apri-December, 2009**									
					By direct recruitment				**By promotion**			**By other methods**		
Groups	Total	SCs	STs	OBCs	Total	SCs	STs	OBCs	Total	SCs	STs	Total	SCs	STs
A	16077	2223	936	1137	323	76	20	71	686	95	76	0	0	0
B	43836	5686	3922	3180	0	0	0	0	5805	926	732	0	0	0
C	58245	9613	10164	5945	42	8	10	6	7561	1271	1814	47	11	5
C(SK)	947	697	129	4	0	0	0	0	77	49	15	0	0	0
Total	**119105**	**18219**	**15151**	**10266**	**365**	**84**	**30**	**77**	**14129**	**2341**	**2637**	**47**	**11**	**5**

RASHTRIYA ISPAT NIGAM LTD. (RINL)

Welfare of SC/ST and OBCs

As on December 31, 2009, group-wise representation of SC/STs and OBCs in the overall manpower is furnished below:

	Number of employees (as on 31-12-2009)				**Number of appointments made during the financial year 2009-10 (till Dec. '09)**									
	By direct recruitment				**By promotion**				**By other methods**					
Groups	Total	SCs	STs	OBCs	Total	SCs	STs	OBCs	Total	SCs	STs	Total	SCs	STs
Group 'A'	5178	857	386	474	21	6	3	7	992	226	87	-	-	-
Group 'B'	2429	395	130	80	-	-	-	-	1895	269	50	-	-	-
Group 'C'	7342	1148	503	448	299	51	22	103	1030	206	152	-	-	-
Group 'D'	2528	388	127	140	100	18	4	42	8	1	1	-	-	-
Total	**17477**	**2788**	**1146**	**1142**	**420**	**75**	**29**	**152**	**3925**	**702**	**290**	**-**	**-**	**-**

A special initiative for Computer Training to the children of SC/ST employees benefiting 290 children was taken up. So far, 193 students have been covered in 9 programmes.

Death Fund Scheme for the employees belonging to SC and ST category was introduced in Jan, 2009 wherein Rs.50/- will be deducted from the salary of the members (approx. 4000) of the Association in the event of death of any member and the amount so collected would be given to the dependent of the deceased member and 9 families have availed the benefits under the scheme so far.

Scholarships for SC/ST Category:

The following Scholarships are meant exclusively for the children of employees belonging to Scheduled Castes and Scheduled Tribe category:

Group	**Qualifying Examination**	**Course in which admission is sought**	**Amount of Scholarships**	**No. of Scholarships**	
				SC	**ST**
I	12th Class / Intermediate Exam. in Science stream	Degree courses in Engineering / Architecture / Medical / Veterinary / Agricultural Sciences.	Rs. 1500/- per month for the full duration of the course	4 (Four)	2 (Two)
II	12th Class / Intermediate Exam in Arts / Science / Commerce / Humanities.	Diploma courses in the areas of Group-I above or Degree or Diploma courses in Pure Sciences of the course/ Social Sciences / Commerce / Business / Personnel Administration / Humanities.	Rs. 750/- Per month For the full duration	4 (Four)	2 (Two)
III	S.S.C or Equivalent	Higher Secondary course (i.e., plus two stage in General or Vocational stream).	Rs. 400/- per month for the full duration of the Course	4 (Four)	2 (Two)

Note: 50% of the scholarships for 2 categories in each group 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 scholarship is earmarked exclusively for the children of Non- Executive Employees.



As a part of Birth Centenary Celebrations of Dr. B R. Ambedkar in the year 1991, Annual Merit Cash Awards scheme was introduced in VSP. As per the scheme, Annual Merit Cash Awards of Rs. 500/- for 1st Rank Holder and Rs. 250/- for 2nd Rank Holder for each school under each stream of 12 VSP Schools (10 Schools at Ukkunagaram and 2 schools at Mines) are given annually to the 10th Class passed students. 28 (twenty-eight) no. of Merit Cash Awards are given under General category and 28 (twenty-eight) no. of Merit Cash Awards are given under SC / STs.

District Level Dealerships (DLDs) to SC/ST/OBC

Preference is given to SC/ST/OBC applicants in appointment of District Level Dealers for distribution of steel products. At present about 40% of DLDs appointed belong to SC/ST/OBC. Subsidy borne by RINL is also more in case of such DLDs.

NMDC LTD.

The total number of employees in NMDC as on 31.12.2009 was 5948, out of which 1076 belong to Scheduled Castes (18.09%), 1313 to Scheduled Tribes (22.07%) and 748 OBCs (12.58%):

Representation of SC/ST/OBC (As on 01-01-2010)					Number of appointments made during the calender year 2009									
					By direct recruitment				By promotion			By Deputation/Absorption		
GROUPS	Total no. of employees	SCs	STs	OBCs	Total	SCs	STs	OBCs	Total	SCs	STs	Total	SCs	STs
Group A	1054	156	64	116	170	25	9	21	2	0	0	0	0	0
Group B	1060	161	238	68	18	4	3	5	17	2	2	0	0	0
Group C	2304	472	534	264	42	13	5	10	190	33	46	0	0	0
"Group D "(Excluding S/K)"	1472	249	476	300	379	80	135	77	16	2	2	0	0	0
"Group D"(S/K)"	58	38	1	0	0	0	0	0	0	0	0	0	0	0
Total	**5948**	**1076**	**1313**	**748**	**609**	**122**	**152**	**113**	**225**	**37**	**50**	**0**	**0**	**0**

Group A includes the Chairman cum Managing Director and 4 functional Directors of the Company

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.

MANGANESE ORE (INDIA) LTD. (MOIL)

Manganese Ore (India) Ltd. is a Labour Intensive Organization with 6747 employees on its roll. About 72.77% i.e. 4910 of the total strength belongs to SC/ST/OBC, out of which approx. 60.57% i.e. 2974 belong to SC/ST. MOIL has undertaken several measures for the Welfare of the SC/ST and OBC Section. Some of them are as listed under:

- Adoption of Tribal villages.
- Training in Sericulture for economic development.
- Help to the Schools in surrounding mines.
- Organisation of Eye Camp/Blood Donation Camp/Child Welfare Camp.
- Grant of subsidy to Gram Panchayat for water supply scheme for providing wholesome water.
- Giving financial assistance to Social Institutions who are working for the rehabilitation of the aged and handicapped persons.
- Donated tricycles to handicapped persons. Provided Sewing machines for development and upliftment of the tribal women.
- MOIL constantly upgrades various welfare measures provided to the weaker sections with a view to improve the quality of life.



The composition of the work force of the Company as on 31/12/2009 is as under :-

Group	S.C	S.T	O.B.C	Others	Total
A	34	9	40	143	226
B	26	4	41	104	175
C	347	233	392	605	1577
D	917	1404	1463	985	4769
Total	**1324**	**1650**	**1936**	**1837**	**6747**

Out of the above 799 are female employees.

Group	No. of employees (As on 31.12.2009)				No. of appointments made during the year (01.04.2009 to 31.12.2009)									
					By Direct Recruitment				By Promotion			By other methods		
	Total*	SCs	STs	OBCs	Total*	SCs	STs	OBCs	Total*	SCs	STs	Total*	SCs	STs
Group A	83	34	9	40	11	6	1	4	4	3	1	0	-	-
Group B	71	26	4	41	2	0	1	1	2	1	1	0	-	-
Group C	972	347	233	392	33	9	4	20	19	10	9	0	-	-
Group D (Excluding Safai Karamcharis)	3728	861	1404	1463	1	0	1	0	28	24	4	0	-	
Group D (Safai Karamcharis	56	56	-	-	0	0	0	0	0	0	0	0	-	-
Total	**4910**	**1324**	**1650**	**1936**	**47**	**15**	**7**	**25**	**53**	**38**	**15**	**0**	**-**	**-**

**Total of SCs+STs+OBCs*

Total employees of MOIL are 6747

MSTC LTD.

The Presidential Directives issued from time to time pertaining to policies and procedures of the Government in regard to reservation, relaxation, concession, etc. for the SC/ST/OBC/Physically Handicapped candidates have been kept in view while taking actions/decisions on any matter laid down therein.

Efforts have been made to comply with the directives in matters concerning recruitment and promotion. Adequate representation of SC/ST/OBC members was made available in both Departmental Promotion Committees as well as Selection Committees (in case of recruitment).

In order to improve the efficiency of the employees belonging to the reserved categories and to prepare them to take up higher positions in the future, special attention was paid to their training and development in their respective fields of function. During the year 2009-2010 (till December, 2009), 13 SC and 3 ST employees of the company were sponsored for training programmes, both in-house and institutional. The ward of one SC employee was awarded scholarship by the company for pursuing higher studies. Apart from this, all welfare facilities provided to other employees of the company are also extended to them.

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



Representation of SCs, STs and OBCs in MSTC

Group	No. of employees as on 31.12.2009				No. of appointments made during the year (01.04.2009 to 31.12.2009)									
					By direct recruitment				By promotion			By other methods		
	Total	SCs	STs	OBCs	Total	SCs	STs	OBCs	Total	SCs	STs	Total	SCs	STs
A	149	24	9	17	-	-	-	-	-	-	-	-	-	-
B	67	13	3	-	*	-	-	-	-	-	-	-	-	-
C	80	21	2	13	5	1	-	1	-	-	-	-	-	-
D (Excluding Safai Karmchari)	17	8	1	1	1	-	-	-	-	-	-	-	-	-
D (Safai Karmchari)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**313**	**66**	**15**	**31**	**6**	**1**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**-**

** No recruitment in Group B*

FERRO SCRAP NIGAM LTD. (FSNL)

For the upliftment of the weaker sections of society, the Company ensures suitable reservation of posts for the Scheduled Caste, Scheduled Tribe and other backward class communities, as per the Government directives in this regard. As regards promotions and welfare of the weaker sections, the Company has evolved a promotion policy and implemented various welfare schemes for its employees as a whole, which adequately cover the employees belonging to SC/ST/OBC communities also. The overall percentage of SC and ST categories of employees in FSNL is 17.61% and 11.07%.

Representation of SCs, STs and OBCs in FSNL

Group	No. of employees as on 31.12.2009				No. of appointments made during the year (01.04.2009 to 31.12.2009)									
					By direct recruitment				By promotion			By other methods		
	Total	SCs	STs	OBCs	Total	SCs	STs	OBCs	Total	SCs	STs	Total	SCs	STs
A	161	17	3	17	10	2	1	3	-	-	-	-	-	-
B	534	70	32	55	-	-	-	-	5	-	1	-	-	-
C	441	112	89	58	10	-	1	3	-	-	-	-	-	-
D (Excluding Safai Karmchari)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D (Safai Karmchari)	03	03	-	-	-	-	-	-	-	-	-	-	-	-
Total	**1139**	**202**	**124**	**130**	**20**	**2**	**2**	**6**	**5**	**-**	**1**	**-**	**-**	**-**

HINDUSTAN STEELWORKS CONSTRUCTION LTD. (HSCL)

- HSCL had been assisting in providing schools in areas where SC/ST/OBC and physically handicapped employees mostly reside.
- Assistance is given for supply of drinking water.
- Plots were allotted to workers for making hutment in the land allotted at sites of client with electricity, water supply and sanitation arrangement etc.
- Children of SC/ST, OBC and physically handicapped employees get due preference in the matter of schooling at projects.
- Directives of the Central Government with regard to recruitment and promotion in respect of SC/ST/OBC and physically handicapped employees are implemented.
- All along the above points had been followed in HSCL, but due to prevailing critical ways and means situation, austerity measures are being followed and avoidable expenditure is being curtailed.



Representation of SCs, STs and OBCs in HSCL

Group	Representation of SCs/STs/OBCs (As on 31.12.2009)				No. of appointments made during the calender year 2009									
					By direct recruitment				By promotion			By other methods		
	Total no. of employees	SCs	STs	OBCs	Total	SCs	STs	OBCs	Total	SCs	STs	Total	SCs	STs
Group 'A' Managerial (Executive level)	159	19	1	16	-	-	-	-	-	-	-	-	-	-
Group 'B' (Supervisory Level)	176	08	1	10	-	-	-	-	-	-	-	-	-	-
Group 'C' (Workmen/ Clerical Level)	718	97	65	43	-	-	-	-	-	-	-	-	-	-
Group 'D' Semi Skilled/ Unskilled (Excluding Sweepers)	36	06	4	3	-	-	-	-	-	-	-	-	-	-
Group 'D' (Sweepers)	0	0	0	0	-	-	-	-	-	-	-	-	-	-
Total	**1089**	**130**	**71**	**72**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

MECON LTD.

The Company is fully aware of its social responsibilities for development and welfare of weaker Section of the Society. The Company 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 programmes, Safe drinking water projects etc.

Inauguration of a village school for the underprivileged children by MECON



Existing employment pattern of weaker Section of society (SC, ST and OBC) in MECON Ltd. is as follows :

Group	Total No. of Employees	SC	ST	Ex. Ser.	PHs	OBC	Women Employees
A	1738	265	120	3	4	203	138
B	61	12	14	4	-	16	1
C	116	24	44	9	3	17	26
D	30	8	13	-	3	4	9
Total	**1945**	**309**	**191**	**16**	**10**	**240**	**174**

SPONGE IRON INDIA LTD. (SIIL)

MANPOWER (as on 31.12.2009)

The total number of Employees as on 31.12.2009 is 300 out of which 62 employees belong to SC Category (20.66%), 23 persons belong to ST Category (7.67%). There are 20 women (6.67%), 4 Physically Handicapped persons (1.33%).

Representation of SCs, STs and OBCs in SIIL

Group	No. of employees				No. of appointments made during the year									
					By direct recruitment				By promotion			By other methods		
	Total	SCs	STs	OBCs	Total	SCs	STs	OBCs	Total	SCs	STs	Total	SCs	STs
Group A	54	16	2	NIL	-	-	-	-	-	-	-	-	-	-
Group B	49	9	3	NIL	-	-	-	-	-	-	-	-	-	-
Group C	125	24	6	1	3	1	-	1	-	-	-	-	-	-
Group D (Excluding Safai Karamcharis)	66	8	11	NIL	2	-	-	-	-	-	-	-	-	-
Group D (Safai Karamcharis	6	5	1	NIL	-	-	-	-	-	-	-	-	-	-
Total	**300**	**62**	**23**	**1**	**5**	**1**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**-**

Employees' Participation in Management

In accordance with the Government guidelines, various Committees have been constituted providing participation of workers and officers in all the activities of the company. The areas of participation of the employees were decided as under:

- Items relating to planning, modification, house keeping, better inventory control, targets, working result, etc.
- Items relating to operation and safety.
- Items relating to welfare of the employees.

A number of Committees at Plant Level, Shop Level and other Committees like Safety Committee, Canteen Committee, Games and Sports Committee, Communal Harmony Committee are functioning thereby ensuring employee's participation in the process of decision making in different areas. The suggestions made by the officers and employees in the said forums are reviewed and implemented wherever they are found to be feasible. This has yielded good results.

Activities Conducted for Welfare of Weaker Sections of the Society

In the matter of recruitment and promotions to various posts, SC/ST candidates are being given the benefits, concessions as per the Government Directives. In respect of OBC, the Government directives are being followed in recruitment. The directives issued by the Government of India from time to time relating to the matter of reservation of posts for SC/ST have been complied with by the company. There was no backlog of vacancies reserved for SC/ST candidates. SIIL, being situated predominantly in a tribal area and in view of dearth of qualified SC/ST candidates, freshers from the institutes are being recruited in different disciplines and the job training is being given to the SC/ST employees so as to enable them to acquire the required skills for possible absorption in regular posts after the training.



To look after the peripheral developmental activities in the nearby areas, a small medical cell is being provided by the company at SIIL Campus. Recognising its social responsibilities, the company under takes programmes from time to time for the benefit of the tribal people in the local areas. As a part of this, free medical camps were conducted by SIIL with the help of local Doctors in the nearby villages and medicines were distributed. The company is running a High School in both Telugu and English medium in its campus to cater to the needs of children of not only SIIL employees but also for other children from the neighbouring tribal villages. The children of local population particularly SC/ST are availing the better facilities of education provided by the Company. Since the plant is predominantly in the tribal area, it is catering to the medical needs for the nearby tribal villages also particularly SC/ST and the down trodden.

Other social amenities such as Post Office, Bank, LPG outlet are made available to the benefit of local population within our company's premises. Preference is being given to local contractors particularly SCs/STs in the matter of petty contracts of urgent nature. Besides this, the contractors are asked to engage local SC/ST candidates for various contract works of temporary nature in the company's premises. Chlorinated drinking water is being provided to the local population residing in and around the factory free of cost bringing the same from Kinnerasani Drinking Water Reservoir.

KIOCL LTD.

Number of Employees

The total number of employees in KIOCL as on 31.12.2009 is 1374 out of which 198 persons belong to Scheduled Caste (14.41%), 61 persons belong to Scheduled Tribe (4.43%) and 212 persons belong to Other Backward Classes (15.42%). Besides, there are 56 women (4.07%), 18 Physically Handicapped (1.31%) and 12 Ex-servicemen (0.87%).

Welfare Measures

- 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" and "D" type quarters are reserved for SC/ST employees.
- During the financial year 2009-2010 (Upto December 2009), 15 numbers of merit scholarships and 40 numbers of merit-cum-means scholarships were sanctioned to the children of employees. Out of 55 numbers of scholarships, 20% of the scholarships i.e. 11 numbers are to be reserved for the children of SC/ST employees. During the year, 11 numbers of scholarships have been sanctioned to SC/ST employees. The qualifying standard of eligibility i.e. First Class or 60% whichever is higher, is relaxable to 50% in the aggregate marks for sanction of scholarship to children of SC/ST employees.

Recruitment

During the calendar year 2009 (Jan. 2009 to Dec. 2009), 16 candidates (2-SC, 4-ST, 2-OBC, 2-Person With Disabilities (PWD) and 1-Minority)) were recruited in Group `A' (Executives).

4 Internal candidates in Group `A' (Executives) have been appointed to higher posts against press advertisement. Out of which, 1 belongs to SC category.

Group	No. of Employees				Number of appointments made during the calender year 2009									
Method					By Direct Recruitment				By Promotion			By other*		
	Total	SCs	STs	OBCs	Total	SCs	STs	OBCs	Total	SCs	STs	Total	SCs	STs
A (Executive)	437	52	15	15	15	2	4	2	70	6	2	4	1	-
B (Supervisors)	33	3	1	-	NIL	NIL	NIL	NIL	18	3	2	NIL	NIL	NIL
C (Non-Executives)	827	121	36	65	NIL	NIL	NIL	NIL	212	39	13	NIL	NIL	NIL
D (Non-Executives)	77	22	9	7	NIL	NIL	NIL	NIL	10	4	2	NIL	NIL	NIL
Total	**1374**	**198**	**61**	**87**	**15**	**2**	**4**	**2**	**310**	**53**	**19**	**4**	**1**	**NIL**



Periodical Meetings with SC/ST Representatives:

There is a regular interaction with the Management and SC/ST Welfare Association at Kudremukh, Mangalore and Bangalore. The grievances of SC/ST employees are discussed and appropriate action is taken to redress their grievances.

Dr. Ambedkar Jayanthi was celebrated at all locations on 14th April 2009.

Training Programme :

a) 543 Employees have been nominated for various programmes, Seminars and Conferences, out of whom 95 (17.49%.) belong to SC/ST category.

b) Some of the Title of the programmes attended by Executives, Supervisors and Non -Executives include :

The Way Forward by FICCI, Basic Computer Training, Leadership and Communication training by Toast Masters Club, IFRS : A Reality for Indian Business, Seminar on IFRS and Accounting Standards, Selection of Consultants and Client Consultant Agreement, Environmental Clearence of Mining Projects, Vigilance and Disciplinary Proceedings, Winning Strategies to revitalize Mining Sector, ISO 9001:2008 Quality Management System/Internal Auditors Training, Workshop on Process Modelling in Iron Making and Steel Making, ISO 14001:2000 Environment Management System- Lead Auditors Training, Seminar on Environment, Health and Beyond, Mining, Exploration Convention and Trade Show, Course on Integrity Pact, Open House Meet with Commerce Secretary, OHSAS18001:2007 Lead Auditors Training, Seminar on Managing Change and Institutional Development through social Innovations, Seminar on Efficient Iron Making and Support Initiatives, Vigilance Awareness for containing Corruption, Work Shop on Field Experience and Technical Update on W46 Diesel Engine, Seminar on Life Extension of Power Transformers, Seminar on Procedures, Actions and Responsibilities on IOD, Seminar on Operation, Cost control Techniques, Workshop and Training on Atlas Compressor, Workshop on Upgradation of OHSAS:18001:2007, Workshop on Enhancement of Recuperation Fan, Upgradation of ISO-9001:2000 to ISO-9001:2008, Technical Refresher class on Ndurating Machine, Integrated Pact on Vigilance, Training Programme on 'Stores Activities', Seminar on SA8000.

BIRD GROUP OF COMPANIES (BGC)

The number of SC/ST/OBC/Ex-Servicemen/ Men and Women employees as on 1st January, 2010 are as below:

Group	Male	Female	Total	SC	ST	OBC	PH	Ex-servicemen	General	Total
Executive	136	7	143	2	4	14	Nil	2	123	143
Non-Executive	1592	326	1918	427	1006	232	3	Nil	253	1918
Total	**1728**	**333**	**2061**	**439**	**1010**	**246**	**3**	**2**	**376**	**2061**

Welfare activities

Providing educational facilities - OMDC and BSLC under the Bird Group extend aids to peripheral schools and colleges. The companies extend aid in the form of construction of buildings, arranging study materials, providing furniture, school buses etc.

Providing Hospital Facilities - OMDC and BSLC run hospitals and provide treatment free of costs to all employees and to the villages located around its mining activities.

Providing Drinking Water by digging wells, tube wells etc. for the employees and to the villages located around its mining activities.

Undertaking of Occupational Health Surveillance - The company undertakes programmes for malaria eradication, pulse polio etc. through the hospitals of OMDC and BSLC to all the employees and to the villages located around the mines.

Occupational Health Surveillance covering facilities like X-ray, pathological laboratory, audiometry, ECG, lungs function test, dental clinic, etc. is conducted by OMDC from time to time for the villagers in the nearby villages in and around mining activities of the company.



CHAPTER-XII

VIGILANCE

ACTIVITIES OF VIGILANCE DIVISION OF THE MINISTRY OF STEEL

The Vigilance unit of 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 DoPT
- 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 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 DoPT.

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 need basis. In the meeting of the CVOs of the PSUs under the administrative control of this Ministry, the overall performance of the PSUs was reviewed. A special emphasis was laid on preventive vigilance and system improvement processes in the PSUs. All circulars containing instructions and guidelines on different aspects of vigilance management received from the CVC, were also circulated to the compliance. Progress thereon, in the form of follow up action taken, was monitored.

During the year 2009-10, the CVOs of the PSUs were directed to:

- Actively participate and co-ordinate and monitor the process of implementation of the Integrity Pact in their respective PSUs and also to review its effectiveness as a preventive measure;
- Duly comply with CVC's guidelines relating to leveraging of technology and
- Provide inputs from vigilance perspective to achieve adoption of e-Commerce including e-procurement and e-payments to the extent possible in their respective PSUs.

ISO certification

In pursuance of the directions given by the Ministry, the Vigilance Departments of all the PSUs have obtained ISO Certification.

Integrity pact

Keeping the beneficial aspects in view, a need to implement Integrity Pact by all the PSUs was emphasised. Inspired by the concerted efforts initiated by the Ministry of Steel, all the PSUs under the Ministry of Steel have signed Memorandum of Understanding (MoU) with the Transparency International India (TII) on 24.9.2007 with the commitment to implement the Integrity Pact in all such transactions in their respective organisations in letter and spirit. The progress of implementation of the Integrity Pact in the PSUs was closely followed up during 2009-10.



JOINT PLANT COMMITTEE (JPC)

JPC attains ISO 9001:2008

As a continuous improvement measure, JPC has upgraded its quality system from ISO 9001:2000 to the higher version, ISO 9001:2008 to achieve greater distinction in its quality of service to the customers.

STEEL AUTHORITY OF INDIA LTD. (SAIL)

SAIL Vigilance is laying emphasis on preventive and proactive activities along with punitive actions 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'09 - December'09:

- The Purchase and Contract procedure has been got modified by the Vigilance Department based on feedback obtained from different stake holders and the new Purchase and Contract Procedure - 2009 (PCP-09) was issued on 22.4.09.
- On the initiative of SAIL Vigilance, a Committee was constituted for reviewing the Standard Bidding Document for making it concise and bringing it in line with the present requirement and CVC guidelines. Revised Standard Bidding Document has been implemented after approval of Chairman on 21.05.2009.
- On the advice of Vigilance, Planning and Programme Section of PPC, R&C Lab (executives dealing with Chemical testing of material) and Material Planning and Technical Cell of Indenting departments including Refractory Planning Cell has been included in the list of sensitive areas after deliberation during the Chief Executive's meeting on 05.05.2009. The revised modifications in the list has since been issued vide letter dated 02.06.2009 by Personnel Department.
- On the advice of Ministry of Steel, scrutiny of projects under the present expansion plan of the Company was undertaken. The observations of the scrutiny were informed to Management, Ministry of Steel and CVC. A presentation on compliance of the observations of CVO was made by Project Directorate in a meeting held in April 2009 where Director (Technical), Director (Finance), CVO and other senior officers were present.
- As advised by Chairman, SAIL, training programme for enhancing commercial acumen of executives working in the

Central Vigilance Commissioner, Shri Pratyush Sinha alongwith SAIL Chairman Shri S.K. Roongta releasing a book – 'Reflections', authored by Chief Vigilance Officer, SAIL Shri Venugopal K. Nair.

Shri S.K. Roongta, Chairman SAIL addressing the gathering during Vigilance Awareness Week at Ispat Bhawan, New Delhi.

shops was designed in consultation with Director (Technical) and Management Training Institute (MTI). First programme was conducted at MTI during 10th-13th August 2009. Second programme on the same is being planned in the first quarter of 2010.

- Review meetings relating to implementation of Integrity Pact with three IEMs have been conducted on 15th July 2009 and 16th December 2009. Standard Operating Procedures (SOPs) formulated by Commission in this regard were discussed. To increase the awareness amongst the vendors and for effective implementation of IP, vendors meet has been conducted on 16th December 2009.
- Vigilance Awareness sessions and workshops were regularly held at the various plants and units. Over 110 workshops involving 2581 participants were held for enhancing Vigilance Awareness on Purchase/Contract procedures, RTI Act, Conduct and Discipline Rules etc. These programmes also included developing Resource Persons for conducting training / awareness programmes on SAIL CDA Rules, Disciplinary Proceedings, RTI Act and Purchase / Contract Procedure at Plants/Units.
- Periodic surprise checks including joint checks were conducted regularly in vulnerable areas of the company. A total of 3175 periodic checks including 411 Joint Checks were conducted at different Plants / Units. Saving of approx. Rs. 3.68 crore accrued from the preventive vigilance activities mainly on account of these Surprise Checks.
- Vigilance Department published its regular half yearly in-house publication named 'Inspiration'. Case studies, experiences etc. were published to help in spreading awareness amongst the employees.
- As part of maintaining regular interaction with the ACVOs, CVO conducted regular quarterly meetings. During such meetings, the status of Vigilance activities are reviewed, issues are sorted out and thrust areas for Vigilance functioning, including improvements in internal processes, are identified.
- 12 cases were taken up for Intensive Examination at different plants / units. During Intensive examination, high value procurement / contracts are scrutinized comprehensively and necessary recommendations are forwarded to concerned departments for implementing suggestions for improvement in future.
- Following eight System Improvement Projects (SIPs) were undertaken at different Plants/units of SAIL:
  - Identification of consumable items/non-consumable items/stores and spares/Raw Materials and Refractories at plant/unit level, which are to be inspected at vendor's premises prior to dispatch to Bhilai Steel Plant.
  - System study to identify the Critical Bearings, standardization, formulation of procurement plan and also to identify the non-moving, slow-moving bearings lying in the store at Durgapur Steel Plant.
  - On line capturing of data related to weight, grade size etc. of each coil at weighbridges with print out tag which will be attached to respective coils in Cold Rolled Mill, Hot Strip Mill and Hot Rolled Coil Finishing at Bokaro Steel Plant.



- Establishing a procedure for identification and circulation of inventory list in various stores of departments' with respect to slow/non-moving items at Rourkela Steel Plant.
- System Improvement in the procedure of material transfer from raw material stores to Steel Melting Shop by wagons at Alloy Steels Plant.
- System Improvement in the entire system of Appointment of Conversion agents and sale of converted products etc. at Salem Steel Plant.
- System Improvement in the Contract of handling Mills and Forged finished products including conducting Magnetic Particle Inspection (MPI) Test, identifying the defects, etc, at Finishing Sections of Rolling Mills / Heat Treatment Shop / Forge Shop at Visveswaraya Iron & Steel Plant (VISL).
- System Study and suggestions for improvement of the concerned Inter Plant Steel Standards (IPSS) pertaining to registration of vendors at Research and Development Centre for Iron and Steel.

RASHTRIYA ISPAT NIGAM LTD. (RINL)

Vigilance Department of RINL took various measures to promote transparency and integrity in RINL through preventive and punitive vigilance. On the preventive vigilance side, system studies were conducted on the procedures being followed in procurements, sales and award of contracts of all departments. Intensive examination of contracts / purchase orders, perusal of audit paras / internal audit reports was conducted. Identification of sensitive posts, surveillance, conducting surprise/quality checks, and rail/road weighments and re-weighments, scrutiny of bills were also undertaken. The vigilance observations were brought to the notice of the concerned departments for taking corrective actions/improvement in existing procedure and systems wherever required. On the punitive side, required assistance was provided to the concerned departments for expeditious processing of disciplinary cases.

RINL has also leveraged information technology for bringing about greater transparency through e-initiatives like e-auction, e-reverse auction and e-payment etc. Observations / suggestions are also made for bringing about systematic improvement pertaining to areas like action for increasing number of sources, removal of ambiguity in pre-qualification criteria, terms and conditions of tender, removal of inconsistencies between terms and conditions of e-auction and actual auction proceedings etc

Vigilance awareness drives are also undertaken to create awareness amongst the employees and other stake holders by conducting awareness sessions, seminars, interactive sessions, etc. Vigilance Awareness Week was also observed and activities like competitions on painting, essay writing, elocution, quiz were organised for the students of the schools in and around Steel Plant. Essay writing competition in Telugu language was also conducted among the school children of Zilla Parishad schools, which are located in the periphery of the Steel Plant and its Mines at Jagayyapeta and Madharam. Other activities included slogan competitions in three languages among the women and RINL employees, inviting of suggestions from employees pertaining to Leveraging of Information Technology for promoting greater transparency, fairness and equity, Painting competition and quiz for differently abled children, interaction sessions with Contractors, vendors and customers of RINL etc

In order to promote greater awareness among organisations in the fight against corruption through adoption of Integrity Pact, a Seminar was organised on 12.08.2009 in the premises of RINL on "Implementation of Integrity Pact in Central Public Sector Undertakings". Central Vigilance Commissioner, Shri Pratyush Sinha inaugurated the Seminar. Joint Secretary and CVO, Ministry of Steel, Shri G. Elias and Vice Chairman of Transparency International India Dr. S.K. Agarwal addressed the participants. Participating organisations included those, which have implemented Integrity Pact and which are intending to implement IP.

NMDC LTD.

During the year, a good progress was made by NMDC Vigilance Department in monitoring the contracts on Single Tender Nomination Basis and in usage of Leveraging Technology as per the instructions received from CVC from-time-to-time. The Vigilance Department continuously monitored the contracts concluded, which are published on the website as per the CVC guidelines. As a result of initiatives of vigilance department, the threshold value was reduced to Rs. 10 Lakh so as to cover 75% of the total transactions. The Integrity Pact was implemented in NMDC during the year 2007 and till date, 20 Contracts valuing Rs. 1012 crore were concluded. After taking up the matter by Vigilance Department, the value limits of contracts have been revised from Rs. 50 crore to Rs. 20 crore for Civil Works and Contracts and from Rs. 15 crore to Rs. 10 crore for procurement. This has improved the transparency in the Tendering Process. By implementing Integrity Pact, NMDC had achieved substantial gains. Monthly Review Meetings are held on



Integrity Pact being reviewed with Independent External Monitors (IEMs) at RINL.

Integrity Pact for its continual improvement. ISO 9001:2000 Certification was awarded to NMDC Vigilance Department in the year 2006 which was valid till 27.10.2009. The mandatory surveillance audits were completed successfully during the years 2007, 2008 and 2009. Subsequently, ISO 9001:2008 certificate was renewed on 26.10.2009 for a further period of three years.

Vigilance Awareness Week was celebrated in NMDC at Head Office and other units from 3rd to 7th November, 2009. During the week, various programs were held such as - a talk on "Promoting Corporate Ethics" - by Shri. Y R K Reddy, Consultant-Global Corporate Governance Forum of World Bank Group. The presentations on "Processing of Proposals" and Vigilance aspects on Anatomy of Corporate Frauds were made on this occasion.

NMDC had already provided the downloadable application form for registration of contractors, suppliers etc., and status of such applications is also provided on NMDC website. This information is updated regularly. NMDC also provides the details of bill payments to the contractors and the status is updated regularly on the NMDC website. From the year 2009, the employees of NMDC are submitting Annual Property Returns online.

The inspections carried out at various units and the study of the cases as per the action plan are reviewed in the Quarterly Meetings and necessary actions are taken for improvement in Vigilance Administration.

Vigilance Department was instrumental in improving the systems and procedures with regard to, updation of vendors list, transparency in procurements, works contracts etc.,

MANGANESE ORE (INDIA) LTD. (MOIL)

During the year 2009, the directives received from the CVC regarding use of Website in respect of Public Tenders have been implemented and the information with regard to contracts / NITs floated and the Concluded Contracts/ Work Orders issued are updated regularly. The Vigilance Department of MOIL provide quality services as per policy and is having ISO 9001:2000 Certificate.

The major works done are enumerated as under:

- Upgradation from the existing ISO 9001:2000 to ISO 9001:2008 of Quality Management Systems of various functions of Vigilance Department of MOIL was taken up. QMS Manual was finalized in the month of Nov' 2009 and the certification body has taken up the audit leading to ISO 9001:2008 certification in Dec' 2009.
- The threshold value of Intergrity Pact has been reduced to Rs.10 crore from Rs. 15 crore in order to cover more contracts/ works under the purview of the pact. Issuance of 4 numbers of Circulars was made for improvement in tender processing and bringing more transparency thereof.



- Vigilance Awareness Week was observed in various Establishment / Mines of MOIL during the period from 3rd-7th November'2009 as per directives reveived from CVC.
- Review of Vigilance Work / Disciplinary Cases in being done by the Board of Directors in their six monthly/annual meeting
- In all 17 Sensitive Posts from the different discipline have been identified and rotation of the offcials is made by the company.
- It has now been made a practice to have interactions with PIOs regularly. During the year 2009-10(upto December, 09), the PIO has received total seventeen applications. All the requests have been replied by PIO within the stipulated time of 30 days. The status of information is available on MOIL's website `www.moil.nic.in'
- Implementation of Leveraging Technology: steps taken by MOIL for system improvement and bring transparency in maximum possible areas of working is enumerated below:

MOIL is committed to implement the guidelines contained in CVC's circular No.40/11/06, dated 22.11.2006 regarding putting the relevant rules/ procedures on the website of the organization. Following is the status of implementation in MOIL:

E-sale: MOIL has implemented e-sale of Ferro Manganese and Ferro Manganese slag from April 2006. Since April 07 the oxide and dioxide grade of ore from Dongri Buzurg mine has also been included in e-auction. During the year 2009-10(upto December 2009) total 8 events of e-sale have been conducted.

E-procurement : MOIL has fixed threshold limit of Rs. 1 crore and above for the purpose of e-procurement. Accordingly MOIL has identified and earmarked High Speed Diesel (HSD), Lubricants, Explosives (Reverse auction), Coke and Coal for e-procurement which constitutes almost 76% of annual purchases. In addition, 34% of annual value of purchase is exclusively done from PSUs.

Payment: The Company is making payments make only online. Wherever there is no facility of online payments, the company is making payments through Real Time Gross Settlement (RTGS) or account payee cheques, depending on facility available.

MSTC LTD.

- ISO Certificate : ISO Certificate 9001-2000 of Vigilance Department was obtained from URS Certification Ltd., UK in July 2008. Susequently surveillance audit has also been completed in June 2009.
- Integrity Pact : Integrity Pact is has been implementated from the year 2007-08 onwards and is applicable in all the contracts exceeding Rs. 2 crore in case of Marketing Deparment and Rs. 50 lakh in case of Selling Agency business. IEM has been appointed as per advice of Ministry and he holds meeting with the Sr. Officers from time to time.
- Leveraging of Technology : In this area Company has made progress. For disposal of all types of materials company has started e-Auction/e-Tendering and the payments are being processed through e-payments. All other jobs relating to closing of accounts, salary disbursements, refund of Security Deposit etc. are being done through Computers.
- Meeting with Chief Executive : As per advice of the Ministry, Vigilance Department is organizing regular monthly meeting with the CMD and the Minutes are also forwarded to Ministry for information.
- Agreed List and List of Doubtful Intigrity : For the year 2009 Agreed List has been prepared and signed by CBI, ACB, Kolkata, New Delhi, Vizag, Bangalore and Chennai.
- Suspension Cases : At present one executive is under suspension. This case is under investigation by the CBI/Court.
- Departmental Proceedings : There are three officers against whom Charge Sheets have been issued and they have also replied. Inquiry officers and Presenting officers have been appointed by the Disciplinary Authority. In another case Charge Sheets have been prepared.



FERRO SCRAP NIGAM LTD. (FSNL)

Vigilance activities during the year continued with special emphasis on preventive vigilance and analysis of existing system improvement.It was the endeavour of the Vigilance department to aid and assist the management in improving systems and procedures so as to ensure transparency in decision making.Various guidelines issued by CVC and Ministry were widely circulated. Co-ordination meeting with CBI was held and random scrutiny of property returns of the officers was carried out.

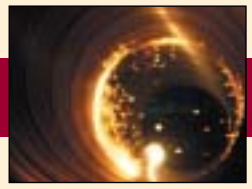
ISO 9001:2000 certification for Vigilance department was obtained. Action has also been taken for leveraging of technology for improving Vigilance administration which includes uploading of application forms on company's website in downloadable form for registeration of contractors for pre-qualification tenders and suppliers for different categories of stores items, updation of vendors list,introduction of e-payment to vendors,etc.

Vigilance Awareness Week was observed from 3rd to 7th November 2009 during which various activities were conducted in order to create vigilance awareness among employees.

Vigilance awarness pledge is being administered to employees at FSNL.

HINDUSTAN STEELWORKS CONSTRUCTION LTD. (HSCL)

- The Vigilance Department of the Company is headed by a CVO.
- Registered cases during April 2009 to December 2009: NIL
- Vigilance Management: Website www.cvohscl.org exists for lodging complaints online.
- Routine monthly and quarterly reports on vigilance activities and others have been sent to the Ministry of Steel / CVC as per directive of CVC.
- Circulars have been issued for systematic improvement in the organisation.
- Vigilance Awareness Week for 2009 was observed from November 3-7, 2009 and report was sent to the CVC.
- ISO 9001:2008 has been obtained by Vigilance wing of HSCL. The ISO Certificate is valid from September 2009 to September 2012.


Integrity Pact (IP)

IP has been made part and parcel for the works valuing Rs. 5 crore and above. 19 IP agreements have been entered into between the agencies and HSCL. So far no complaint has been received. Next quarterly meeting with Independent External Monitors (IEMs) is due in March, 2010, wherein IP implementation will be reviewed and if required, threshold limit will be revised.

Leveraging Technologies

The 2nd stage implementation of Leveraging technology is in progress. Payment to contractors and employees are being made through e-payment as far as possible. Application forms for Provident Fund, Gratuity etc. are hosted on website. Tenders invited and work awarded, Work Manual and Registration of vendors are being hosted on website. Efforts are on to implement e-tendering.

Agreed list and list of Doubtful integrity for 2009 has been finalized and is under process for 2010. No Departmental proceedings are pending in the company. Chief Technical Examiner (CTE) of the Central Vigilance Commission has conducted examination of two works of HSCL during the year. Observations of CTE examination conducted earlier have been settled. Minor penalty to three officials, in one case and censure to 2 officials in another case has been awarded. 3 Complaints were received during the period from the CVC and the report has been submitted to the CVC.

MECON LTD.

The Vigilance set-up of MECON is headed by a Chief Vigilance Officer (CVO) supported by Vigilance Department. The vigilance set-up is responsible for the following:

- Identification of sensitive areas prone to malpractices/temptation and taking preventive measures to ensure integrity/ efficiency in MECON.
- Scrutiny of complaints and initiation of appropriate investigation measures.
- Inspections and follow-up action on the same.
- Furnishing the comments to the Central Vigilance Commission on the investigation reports.
- Advising appropriate action in respect of departmental proceedings.
- Obtaining first and second stage advice of the CVC, wherever necessary.
- Examination of complaints regarding allegations against the officials/officers for appropriate action.
- Maintenance and scrutiny of immovable property return of officers and staff of MECON.

In compliance to the above functions, following actions have been initiated and implemented:

- The company adopted a pro-active approach to bring vigilance awareness among employees by nominating concerned employees for training and organizing awareness programmes. Training programmes were organized for the awareness of the employees at Kolkata, Bangalore, Mumbai and Delhi Offices of MECON during the year. Circulars issued by CVC and other authorities are given wide circulation for the benefit of the employees.

From Right to Left: Shri A.K. Ghosh, Director (Commercial), Shri M.K. Deshmukh, the then Director (Engineering), Shri L.R. Singh, Director (Technology), Shri A.K. Sarkar, GM (Coal and Chemicals) and Shri S.Y.K. Minz, CVO conducting the Vigilance Awareness Week Programme in MECON.



- Vigilance Awareness Week was observed during the year from 03.11.2009 to 07.11.2009. In the vigilance awareness week, presentation-cum-interaction sessions were held for executives/employees specially from sensitive departments/ areas viz., Contracts/Commercial, Purchase and Stores, Finance, Personnel and Admn. etc. for making them aware of the various guidelines issued by CVC from time to time to bring about transparency in the functioning of government bodies by making extensive use of technology. The topic also included 'Common Lapses identified by CVC' and 'Common lapses observed in MECON'.
- Through surprise checks and regular inspections, system improvements were recommended in some of the areas, particularly in tendering and procurement, personnel (Establishment rules), Finance (TA bills).
- On the preventive vigilance front, greater thrust was laid on examination of tenders with a view to modifying certain restrictive tender clauses to increase competition and transparency.
- Proactive vigilance work was done in the areas of award and execution of contracts pertaining to operation and maintenance. Management exhibited positive attitude towards the suggestions of the vigilance department.
- Close interaction is being maintained with CBI. Pending cases were reviewed periodically. All the periodical statistical returns/reports were submitted to MOS, CVC and CBI in time.
- As per CVC circular, action is taken to ensure that tenders/contracts issued are being posted on the website regularly every month and a strict monitoring of the same is being done. IT usage in tendering, commercial activities, etc is being steadily implemented. All significant tenders for materials, products, services, etc. are put on the website of the company, in addition to NIT in newspapers, for wider access and greater transparency. Contract Manual was updated.
- Payments to suppliers are being made through ETF to increase transparency and efficiency. Vendor registration, application for recruitment was done online to promote transparency.
- Rotation of officials was done in MECON in sensitive areas during 2009. Assessment and identification of sensitive posts is a continuous process.
- Scrutiny of property returns is regularly done in MECON.
- MOU has been signed with Transparency International for implementation of Integrity Pact. Integrity Pact has been signed for 14 projects with vendors.
- ISO Certification of the Vigilance Department of MECON for next three (3) years has been obtained in October, 2009.
- Articles on vigilance issues was published in MECON's in-house journal "MECON SANSAR".

SPONGE IRON INDIA LTD. (SIIL)

The directives issued by the Central Vigilance Commission from time to time were followed. As per the directives of CVC, Vigilance Awareness Week was celebrated from 03.11.09 to 07.11.09 and the suggestions of CVC/Ministry of Steel received from time to time were implemented.

KIOCL LTD.

ISO 9001-2008

Vigilance Department of KIOCL obtained ISO-9001:2000 Certificate on 07.11.2006 with a validity of 3 years. Agencies have been fixed for consultation (for up-gradation of system from 2000 version to 2008 version) and Certification separately. KIOCL has assisted other PSUs such as NMDC, RINL, MOIL in tendering process for fixing agencies, as it was done in the year 2006. M/s. ICS Pvt Ltd, has conducted audit on 6th November, 2009 and issued certificate which is valid up to 8th December, 2012.

Integrity Pact

Integrity Pact has been introduced in KIOCL from 01.01.2008. Annual Review Meeting with Transparency International India was held on 30th September-2009. Admiral (Retd.) Tahiliani, Chairman, TII, New Delhi, attended the meeting. About 15 agencies (Counter parties) participated. CMD, Directors, CVO, IEMs, Sr. Officers of the Company were present. CVO outlined the basics of the Integrity pact to all the participants. The counter parties and IEMs shared their experience on IP. Doubts raised by counter parties were clarified by Mr. Tahiliani, CMD and CVO. The Third Review Meeting with IEMs was held on 10.11.2009 with Sri. KVM Pai and Dr. Meenakshisundaram, the two IEMs on 02nd June 2009 at Corporate Office, Bangalore. Till December 2009, about 97 contracts have been issued with IP included. But so far no complaints have been received by the IEMs.



Agreed list

Agreed list and list of Officers of Doubtful integrity were prepared on 20th May-09 in consultation with CBI and with the approval of CMD, KIOCL.

Inspections

19 CTE type inspections, 18 surprise checks, 12 general inspections and 27 scrutinies of files were carried out during the period from April-2009 to December-2009.

Vigilance Department Manual

Preparation of Manual of Vigilance Department is completed and same has been put to use from Oct-09.

Structured meetings of Vigilance

As per the instructions of CVC and Ministry of Steel, Structured Meeting of Vigilance with CMD is being conducted regularly. Till date three of such meetings have been conducted. Issues related to e-procurement, Leveraging Technology, Integrity Pact, Corporate Governance, Recruitment policy have been discussed. Minutes were circulated to concerned officials for taking necessary action as decided in the meeting. Copies of minutes were sent to CVC and MoS.

Property Returns

20% of the property returns have to be scrutinized every year as per CVC guidelines. This had been completed by Oct-09.

Vigilance Awareness Week

Vigilance awareness Week was observed from November 03rd - 07th 2009 in KIOCL Limited. On this occasion a programme was arranged on 4th November 2009. Justice (Retd) N. Venkatachala, former Lokayuktha, Karnataka State was the Chief Guest. On this occasion the Company honored three officers for very high integrity who have scored excellent grading in respect of four traits such as fairness, transparency, discipline and ethical behavior in their annual appraisals for 3 continuous years with an Integrity Recognition Certificate. On 7th November 2009, the concluding day of observance of vigilance awareness week, a lecture programme was arranged in the conference hall. Shri. Narasimha Komar, IPS, SP, CBI, Bangalore was the Chief Guest. He spoke about the "Role of CBI in the fight against corruption".

Complaints and cases

Ten complaints were received during the above period. Two of them were anonymous and one was pseudonymous. Hence no actions was taken on these 3 complaints as per CVC guidelines and the same have been titled. 3 complaints were received from CVC. Reports have already been sent to CVC. Out of 3, one complaint has been closed after receipt of communication from CVC. One complaint was received from SP/CBI/ACB. He was asked to provide further information and views on the issue. Reply is awaited. Action has been taken on the rest of three complaints and closed. 4 cases were registered during the period. Two have been closed and two are under investigation.

Training Programmes

Vigilance Department has conducted as many as 10 training programmes at three different locations. More than 300 employees participated in these programmes. Important topics such as Integrity Pact, leveraging technology, improving transparency and effective use of website, preventive vigilance, etc., were covered.

BIRD GROUP OF COMPANIES (BGC)

After review of the sensitive areas of the work, the following recommendations have been made:

- All the payments to be made through electronic medium, MIS system at the Headquarters to be stream lined in order to maintain a daily record of production and sales of minerals from different production points in different companies under the Bird Group of Companis. The database for production and delivery of minerals sold from different mines to be maintained in every mine in the computer on a daily basis. It is being impelimented in a phased manner as per avilable infrastructure.
- Installation of weighbridges at the exit of each production point/quarry and such weighbridge to be connected with computer in order to ensure automatic recording of minerals recived at the Railways siding to be reconcilled every day. It is being implemented in phased manner.
- Use of NIC portal to give order for the advertisement of sale of minerals to be sold only through e-auction even in case of 'NIL' response to the e-auction. Sale of Iron Ore and Mn Ore is being made through e-auction only.
- BGC observed its vigilance awareness week in the month of Nov, 2009 from 3rd Nov, 2009.



CHAPTER-XIII

GRIEVANCE REDRESSAL MECHANISM

MINISTRY OF STEEL'S GRIEVANCE CELL

Steel Minister's Grievance Cell has been functioning in the Ministry of Steel since July 2004 to coordinate and monitor the grievances/complaints/suggestions of public and consumers relating to steel and steel products, received either in the office of Minister of Steel or directly in the Cell. In addition, a Joint Secretary rank officer is designated as the Grievance Officer of the Ministry to receive and dispose off petitions from the public.

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 are as under:

Grievance source	Opening balance	Receipt during the period	Total	Yet to be assessed as on 31/12/2009	Taken up within office	Forwarded to SO*	No action required	Cases disposed of during the period	Closing balance as on 31.12.2009	Reply sent to DPG/ DARPG
DPG**	0	0	0	0	0	0	0	0	0	0
DARPG	12	10	22	6	0	7	1*	3	18	0
Local/Post/ Internet	22	20	42	19	0	16	4	0	38	-
Total	34	30	64	25	0	23	5	3	56	0

Note: ' ' indicates the number of grievances disposed of by Nodal Authority viz. DPG/DARPG without any action taken by Ministry of Steel*
*'** ' Directorate of Public Grievance"*

Customers Meet in progress for Grievance Redressal.



JOINT PLANT COMMITTEE (JPC)

JPC has in place within the organization a systematic and fair mechanism to address and redress grievances of its employees.

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 Staff grievances for the period 1.4.2009 to 31.12.09 is as under:

Grievances outstanding as on 1.4.2009	No. of grievances received during the period	No. of grievances disposed of	No. of grievances pending as on 31.12.2009
18	1856	1854	20

RASHTRIYA ISPAT NIGAM LTD. (RINL)

Staff Grievances

In RINL/VSP, there are separate structured and Formal Grievances Handling Systems for redressal of grievance of employees. In the formal Grievance Procedure for non-executives, a member from workers' representative is present in the committee. Further, both executives and non-executives grievances handling systems have a fixed time frame to redress the grievances.

Public Grievances

A senior officer at the level of General Manager is designated as Officer on Special Duty (Public Grievances) to deal the public grievances. In addition, a full fledged RTI Cell is functioning in RINL/VSP which also takes care of public grievances in a time bound manner.

The information regarding the public and staff grievances for the year 2009-10 (up to December 2009) is furnished below:

Type of Grievance	Nos. outstanding as on 1.4.2009	Nos. received during the period	Nos. disposed of	Nos. pending (till December 2009)
Public Grievance	–	–	–	–
Employee Grievance	02	30	28	04

There are no public grievances outstanding with RINL.

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. The machinery is working satisfactorily. However, the volume of grievances handled is very low, as such, computerization has not been done. Public dealing in the organization being minimal, no time norms etc. have been fixed. However, as and when any public grievances (including in the press) is received, the same is promptly attended to. Monthly and quarterly reports on staff/public grievances are sent to Ministry indicating the position. During the period under review, no Public/Staff Grievances were received by NMDC.



MANGANESE ORE (INDIA) LTD. (MOIL)

- Employees grievances: MOIL has its own grievance redressal procedure for Executives as well as non-executive employees. The grievances of employees are accordingly dealt with as per the rule.
- 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.
- Public Grievance: All Grievance officials have been apprised of the manner in which the Public Grievance received at this end are to be disposed. The system adopted for dealing the grievance of Public was constituted on the basis of instructions received from various authorities in the past.
- Periodicity monitoring of Grievances by Directors designated for Public Grievances and other divisions of the company also have Public Grievances Redressal Mechanism (PGRM), independent of PGRM of the Ministry.
- 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 01.04.2009 to 31.12.2009.

Type of Grievances	Grievances Outstanding as on 01.04.2009	No. of Grievances as received during the period	No. of cases disposed of	No. of cases Pending on 31.12.2009
Public Grievances	-	-	-	-
Staff Grievances	Nil	401	387	14
Total:	**Nil**	**401**	**387**	**14**

MSTC LTD.

A public grievance cell has been constituted with three senior and middle level executives to deal with any grievance of any member of the public relating to the functioning of the company. This grievance cell also handles grievance of the executives and non-executives of the Company. Subsequently, this cell has been expanded to include the Regional Managers and Branch Managers in the Grievance Cell. Constitution of this cell has been widely circulated to all the offices of the MSTC. The grievance received is examined by the cell in consultation with the head of department (HOD) concerned. MSTC being a very small organisation, with a maximum of 20 to 30 staff in each department/office, the staff have easy access to the Head of Departments and even the CMD. Therefore, no necessity has been felt for setting up of a formal machinery for redress of employees' grievance. The Personnel Department addresses formal/informal grievances received in consultation with the HOD concerned and sometimes with the staff union if the grievance is of a collective nature. Besides, in line with the Supreme Court judgement, a Committee has also been constituted for prevention of sexual harassment of women at the work place.

Following are the details of grievances during the period April 1, 2009 to December 31, 2009:

	Pending on 01.04.09	Received	Disposed of	Pending (as on 31.12.2009)
Public Grievances	14	27	36	5
Staff Grievances	Nil	Nil	Nil	Nil

FERRO SCRAP NIGAM LTD. (FSNL)

FSNL is engaged in rendering specialised services to the integrated steel plants in scrap recovery and processing operations. Hence, no direct public dealings are made by the company. However, in case any public grievances are received, the same are redressed without any delay.



For redress of staff grievance, a grievance redressal scheme exists wherein the grievances are redressed to the entire satisfaction of the individual concerned, in a time-bound schedule, the salient features of which are as under:

- In all the units/corporate office, FSNL has placed boxes, viz., "Grievance/Suggestion Box", which is kept at the reception counter of the units/corporate office, keeping in view the easy accessibility of these boxes to the public in general and the staff. It is worthwhile to mention here that so far no public grievance has been received.
- The suggestions/grievances so received, are endorsed in a register called "Suggestion/Grievance Register", on every Friday, in the presence of public/staff grievance officers, nominated for this purpose.
- Under stage-I, if an employee/public has some grievance, he gets an opportunity to meet the public/staff grievance officer nominated for this purpose, who patiently hears the grievance, and if necessary, makes enquiries and gives the complainant a verbal answer within three working days from the date of hearing the grievance.
- Under stage-II, in case the employee/public is not satisfied with the answer given by the public/staff grievance officer, or if he does not get any reply within three working days' time, or if his grievance does not get redressed satisfactorily at the level of public/staff grievance officer, the complainant gets an opportunity to meet the unit heads at the units and General Manager (Operations) at the corporate office, who patiently hears the grievance, gets the feed-back from the concerned persons and gives his decision on the grievance, or sends a reply to the complainant. Under stage-III, if the employee/public is not satisfied with the outcome of stage-II, he gets an opportunity to meet Chief General Manager of the company at the corporate office, who patiently hears the grievance, analyses the same and redresses it, in case he is not satisfied with the decision taken at state-II.
- If the employee/public is not satisfied with the result of Stage-I, II, and III, he can make an appeal to the Managing Director of the company, who will, in turn, re-examine the action taken in all the above three stages, analyse the grievance and communicate his decision to the concerned employee/public, within 15 days' time from the date of receipt of the appeal.

Details of grievances during the period April 1, 2009 to December 31, 2009

Outstanding	Pending as on 01.04.09	Received (01.04.09 to 31.12.09)	Disposed as on 31.12.2009	Pending as on 31.12.09
Staff Grievances	10	20	20	10
Public Grievances	Nil	Nil	Nil	Nil

HINDUSTAN STEELWORKS CONSTRUCTION LTD. (HSCL)

Compliance with regard to public/staff grievance redress has been made during 2007-08 and 2008-09. The provisions of RTI act are in place.

MECON LTD.

Public Grievances

By and large MECON does not have dealings with the public in general. But any specific complaint 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. A notice has been put up near the Reception at the main gate mentioning the details of contact official whom the public can contact for the above purpose. Representatives of the public in general have access to meeting the concerned officials of the Department and also designated officials mentioned above on matters relating to public grievances. MECON has also designated officials under Right to Information Act, 2005 for handling public grievances and the same has been given wide publicity through press and electronic media for information of general public.

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.

Suggestion/Complaint Boxes have been placed at various floors/offices, which can be utilized by the employees for placing their grievances/point of view before the Management. 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.

SPONGE IRON INDIA LTD. (SIIL)

During the year, the Committee, constituted with 2 Senior Officers of the Company for redressal of Public Grievances relating to the Company matters, has been attending to the Public Grievances regularly. Shri A. Victor, Dy. Manager (P&A) was nominated for the Seminar on Grievance Redressal Mechanism at New Delhi on 18.09.09.

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. Ever since the introduction, the scheme has been working satisfactorily without any complaint from any corner either from the Recognised Union or Officers Association. In view of the limited number of employees in the organization, the Grievances are easily identified and redressed at the grass root level itself.
- Whenever any Public Grievances are received by the Company in writing, the same are acknowledged promptly. The Grievances so received are carefully examined in detail and analysed for taking quick and prompt action. Two Directors, one General Manager and one Deputy General Manager, are designated as Directors of Grivances for redressal of the Public/Staff Grievances.

Grievances outstanding as on 1.4.2009	No. of Grevance received during the period	No. of Cases disposed of	No. of Cases pending as on 31.12.2009
2	1	NIL	3

BIRD GROUP OF COMPANIES (BGC)

As regards the status of grievances in BGC, there is no grievance pending as on January 01, 2010.



CHAPTER-XIV

IMPLEMENTATION OF PROVISIONS OF PERSONS WITH DISABILITIES ACT, 1995

MINISTRY OF STEEL

The Ministry of Steel and all the PSUs under it follow the Government rules with regard to the implementation of provisions of the Disabilities Act, 1995. Status of implementation of the Persons with Disabilities Act, 1995 during the year 2009-10 (as on December 31, 2009) in the Ministry of Steel:

Group	Number of employees							Direct recruitment							Promotion				
	No. of vacancies reserved							No. of appointments made				No. of vacancies reserved			No. of appointments made				
	Total	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH	
Group A	36	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Group B	96	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Group C	53	0	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Group D	61	1	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total	**246**	**1**	**1**	**0**															

Note:

(i) VH stands for Visually Handicapped (persons suffering from blindness or low vision)

(ii) HH stands for Hearing Handicapped (persons suffering from hearing impairment)

(iii) OH stands for Orthopaedically Handicapped (Persons suffering from locomotor disability or cerebral palsy)

Handing over of Tricycles to differently abled persons by the Joint Plant Committee.


STEEL AUTHORITY OF INDIA LTD. (SAIL)

Representation of persons with disabilities

(As on 31.12.2009)

Group	Number of employees				Direct recruitment							Promotion						
		No. of vacancies reserved						No. of appointments made				No. of vacancies reserved			No. of appointments made			
	Total	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH
A	16077	0	4	62	1	1	12	323	0	0	5	0	0	0	686	0	0	3
B	43836	18	7	150	0	0	0	0	0	0	0	5	5	5	5805	0	0	14
C	58245	28	39	363	17	14	15	42	2	0	0	1	1	1	7561	1	0	17
C(SK)	947	9	1	1	0	0	0	0	0	0	0	1	0	0	77	0	0	0
Total	**119105**	**55**	**51**	**576**	**18**	**15**	**27**	**365**	**2**	**0**	**5**	**7**	**6**	**6**	**14129**	**1**	**0**	**34**

Note:

(i) VH stands for Visually Handicapped (persons suffering from blindness or low vision)

(ii) HH stands for Hearing Handicapped (persons suffering from hearing impairment)

(iii) OH stands for Orthopaedically Handicapped (Persons suffering from locomotor disability or cerebral palsy)

Welfare schemes/policies being administered by SAIL for physically disabled persons

- SAIL has contributed an amount of Rs. 20 lakh to the Sankar Foundation, Vishakhapatnam, towards the cost of setting up of a water treatment plant at the Sankar Foundation's Eye Hospital.
- SAIL has contributed an amount of Rs. 15.90 lakh to Deepalaya, New Delhi, for a well-equipped mobile bus with all facilities for a project to make education accessible to the differently-abled by taking education at their doorsteps.
- SAIL has provided financial assistance of Rs. 10 lakh to the Narayan Sewa Sansthan (Trust), Udaipur, for performing surgeries of 1,000 polio patients.
- SAIL has provided an amount of Rs. 7 lakh to the National Centre for Promotion of Employment for Disabled People on World Disability Day - 2008.
- SAIL has contributed an amount of Rs. 4.24 lakh towards medicine/ pathological testing/other investigation of patients of the Rehabilitation Centre, SEVAC, in Kolkata.
- SAIL has committed an amount of Rs. 6.10 lakh to Cankids-Kidscan, Delhi, towards the running and maintenance costs of Home Away from Home (HAH), and the transportation cost from hospital to HAH.
- SAIL has provided fund of Rs. 6 lakh to Cry, Child Rights and You for the "Chote Taray" project in Jammu and Kashmir for differently-abled children of two villages and nine mohallahs of Srinagar and Budgaum.
- SAIL has contributed an amount of Rs. 7 lakh to the Rajiv Gandhi Foundation towards the cost of 10 bingos for handicapped people.
- SAIL has contributed an amount of Rs. 2.50 lakh to Swaminarayan Akshardham, Delhi, towards educational tour fee for 5,000 handicapped poor students (@ Rs. 50 per child for 2008-09.
- SAIL has provided an amount of Rs. 5 lakh to the Life Line Care organisation, New Delhi, towards the capital/ fixed/non-recurring expenditure of computer training/ vocational training centre for visually impaired persons.
- SAIL has provided an assistance of Rs. 2.50 lakh to the Gunjan Foundation for organising a free camp for the physically challenged people from October 15-18, 2008.
- SAIL has provided Rs. 0.17 lakh to the United Physically Handicapped School, Coimbatore, towards supporting two orphan children.



RASHTRIYA ISPAT NIGAM LTD. (RINL)

The status of implementation of Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 during 2009-10 (Up to 31.12.2009) is furnished below.

(As on 31.12.2009)

Group	Number of employees appointed after the Act came into force (i.e. 7-2-1996)				Direct recruitment (during Fin. year 2009-10)							Promotion (during Fin. year 2009-10)							
					No. of vacancies reserved			No. of appointments made				No. of vacancies reserved			No. of appointments made				
	Total	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH	
Group A	128*	1	1	3	1#	2#	1#	9*	-	-	1	NIL	NIL	NIL	NIL	NIL	NIL	NIL	
Group B	-	-	-	-	-	-	-	-	-	-	-	NIL	NIL	NIL	NIL	NIL	NIL	NIL	
Group C	1080	8	9	11	6#	5#	3#	299	1$	1$	3$	Nil							
Group D	294	3	4	3	2#	2#	2#	100	1$	1$	1$								
Total	**1502**	**12**	**14**	**17**	**9#**	**9#**	**6#**	**408**	**2$**	**2$**	**1+4$**								

** Posts identified for disabled # Recruitment under process $ Posts were notified prior to 1-4-2009 but joinings took place during 2009-10*

Note:

(I)VH stands for Visually Handicapped (persons suffering from blindness or low vision)

(ii)HH stands for Hearing Handicapped (persons suffering from hearing impairment)

(iii)OH stands for Orthopaedically Handicapped (persons suffering from locomotor disability or cerebral palsy)

With a view to encourage and support physically challenged children of VSP employees, the following scholarships are provided:

Applicable for	Criteria for Selection	Amount of Scholarships	No. of Scholarships
Children of employees with the following disabilities who are pursuing studies in any course in a Recognized School/ College /General or Vocational Institute: ❖ Blindness ❖ Hearing impairment ❖ Locomotors disability ❖ Mental retardation ❖ Mental illness ❖ Cerebral Palsy	Nature and extent of disability of the child and the extent to which the training/ education would help in rehabilitation of the child, as assessed by the Committee consisting of 4 members each from Medical, Sports, F&A and Personnel	Rs. 750/- per month for a period as recommended by the Committee	6 (Six) Per annum

Further, the following actions have been taken in RINL/Visakhapatnam Steel Plant for the convenience of differently abled persons visiting different offices in Main Administrative Building the Corporate Office of RINL/VSP.

- Ramp way
- Auditory signal in both the lifts of the building.
- Provision of a wheel chair at the Reception Centre located at the entrance of the Main Administrative Building.



NMDC LTD.

Currently, NMDC has 42 employees with disabilities in various posts.

(As on 31.12.2009)

Group	Number of employees (as on 01.01.2010)				Direct recruitment (During the year 2009)							Promotion** (During the year 2009)						
					No. of vacancies reserved			No. of appointments made				No. of vacancies reserved			No. of appointments made			
	Total	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH
A	1054	0	0	4	0	0	1	33*	0	0	1	-	-	-	-	-	-	-
B	1060	0	0	3	0	0	0	0*	0	0	0	-	-	-	-	-	-	-
C	2304	2	3	26	0	1	2	42	1	3	8	0	0	0	0	0	0	0
D	1530	0	0	4	3	2	4	379	0	0	0	0	0	0	0	0	0	0
TOTAL	**5948**	**2**	**3**	**37**	**3**	**3**	**7**	**454**	**1**	**3**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Notes

i) VH stands for Visually Handicapped (persons suffering from blindness or low vision)

ii) HH stands for Hearing Handcapped (persons suffering from hearing impairment)

iii) OH stands for Ortopaedically Handicapped (persons suffering from locomotor disability or cerebral palsy)

*iv) (*) For group A & B posts, recruitment in identified posts where reservation is applicable have been shown*

*v) (**) Promotions in identified posts are time bound.*

vi) In Group D, posts where recruitment is made, are non identified posts. There has been no recruitment in identified posts which are very few.

MANGANESE ORE (INDIA) LTD. (MOIL)

Representation of persons with disabilities

Group	Total No. of employss as on 31.12.2009	No. of posts identified where Physically handicapped persons can be appointed	No. of disabled persons (BL/ HI/LD)	% with regard to no. of posts identified	In case %age is less than 3% reasons thereof
A	226	80	-	-	
B	175	101	3	2.97	*
C	1577	179	10	5.58	
D	4769	139	3	2.15	*
Total	**6747**	**499**	**16**	**3.20**	

(*)Manganese Ore (India) Ltd. being Mining Company and major activities carried out are in underground Mines situated in remote places. It is not possible due to statutory restrictions under Mines Act and Metaliferous Mines Regulation and because of the safety reasons, to deploy disabled persons on the jobs which are on strenuous nature at our Mines. There is no direct recruitment in the identified category since last 11 years. As and when the recruitment will be done and the same may be taken care off.

(As on 31.12.2009)

Group	Number of employees				Direct recruitment							Promotion						
					No. of vacancies reserved			No. of appointments made				No. of vacancies reserved			No. of appointments made			
	Total*	VH	HH	OH	VH	HH	OH	Total*	VH	HH	OH	VH	HH	OH	Total*	VH	HH	OH
Group A	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-
Group B	3	-	-	3	-	-	-	0	-	-	-	-	-	-	0	-	-	-
Group C	10	3	-	7	-	-	-	0	-	-	-	-	-	-	0	-	-	-
Group D	3	1	2	0	-	-	-	0	-	-	-	-	-	-	0	-	-	-
Total	**16**	**4**	**2**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

* Total of VH+HH+OH

Note:

(i)VH stands for Visually Handicapped (persons suffering from blindness or low vision)

(ii)HH stands for Hearing Handicapped (persons suffering from hearing impairment)

(iii)OH stands for Orthopadedically Handicapped (persons suffering from locomotor disability or cerebral palsy)



MSTC LTD.

Representation of persons with disabilities

(As on 31.12.2009)

Group	Number of employees as on 31.12.09				Direct recruitment							Promotion						
					No. of vacancies reserved			No. of appointments made				No. of vacancies reserved			No. of appointments made			
	Total	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH
A	149	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B	67	-	1	1	No	recruitment		in	Group	B		-	-	-	-	-	-	-
C	80	-	-	3	-	-	-	5	-	-	-	-	-	-	-	-	-	-
D	17	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Total	**313**	**-**	**1**	**7**	**-**	**-**	**-**	**6**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Notes:

i) VH stands for Visually Handicapped (persons suffering from blindness or low vision)

ii) HH stands for Hearing Handicapped (persons suffering from hearing impairment)

iii) OH stands for Orthopaedically Handicapped (persons suffering from locomotor disability or cerebral palsy)

FERRO SCRAP NIGAM LTD. (FSNL)

To help physically challenged persons of the society, the company has identified some Government higher secondary schools of nearby villages where FSNL's units are functioning, and has distributed text books, notebooks and other useful items to the physically challenged students for their studies.

Representation of persons with disabilities

(As on 31.12.2009)

Group	Number of employees as on 31.12.09				Direct recruitment							Promotion						
					No. of vacancies reserved			No. of appointments made				No. of vacancies reserved			No. of appointments made			
	Total	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH
Group A	161	-	-	-	2	1	1	10	-	-	-	-	-	-	-	-	-	-
Group B	534	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Group C	441	-	-	1	-	-	-	10	-	-	-	-	-	-	-	-	-	-
Group D	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--
Total	**1139**	**-**	**-**	**1**	**2**	**1**	**1**	**20**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

(i) VH stands for Visually Handicapped (persons suffering from blindness or low vision) (ii) HH stands for Hearing Handicapped (persons suffering from hearing impairment) (iii) OH stands for Orthopaedically Handicapped (Persons suffering from locomotor disability or cerebral palsy)

HINDUSTAN STEELWORKS CONSTRUCTION LTD. (HSCL)

There has been no recruitment in the company during the last 15 years. The details of disabled persons employed in the company are depicted below:

Group	No. of employees	No. of disabled			Appointment during the year (As on 31.12.2009)	
		VH	HH	OH	Director Recruitment	Promotion
A	159	0	0	3	-	-
B	176	0	0	3	-	-
C	718	2	0	1	-	-
D	36	0	0	0	-	-
Total	**1089**	**2**	**0**	**7**	**-**	**-**



MECON LTD.

There is a scheme for the welfare of disabled persons. MECON is providing assistance to Cheshire Home (a home for disabled persons) located at Ranchi. Some of the activities are construction of girl's hostel building, kitchen block, stores room and cow shed of Cheshire Home. MECON also donated wheel chairs, tricycles, crutches, artificial limbs, calipers, etc for use of disabled persons. Training on Chalk making and candle making was organized at Cheshire Home by MECON.

The Company has implemented the provisions of "Persons with Disabilities Act, 1995". Total employment strength of MECON as on 31.12.2009 is 1945, out of which persons belonging to disabled/Physically handicapped category in various posts in "A", "B", "C" and "D" are 10 (A - 4, B - NIL, C - 3 and D - 3).

Representation of persons with disabilities

(As on 31.12.2009)

Group	Number of employees				Direct recruitment							Promotion						
					No. of vacancies reserved			No. of appointments made				No. of vacancies reserved			No. of appointments made			
	Total	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH
Group A	1738	-	1	3	2	2	2	175	-	-	-	3	3	3	290	-	1	-
Group B	61		-	-	-	-	-	-	-	-	-	1	-	-	2	-	-	-
Group C	116		1	2	1	-	-	2	-	-	-	1	-	-	9	-	-	1
Group D	30		-	3	1	-	-	13	-	-	2	-	-	-	-	-	-	-
Total	**1945**	**0**	**2**	**8**	**4**	**2**	**2**	**190**	**0**	**0**	**2**	**5**	**3**	**3**	**301**	**0**	**1**	**1**

(i) VH stands for Visually Handicapped (persons suffering from blindness or low vision) (ii) HH stands for Hearing Handicapped (persons suffering from hearing impairment) (iii) OH stands for Orthopaedically Handicapped (Persons suffering from locomotor disability or cerebral palsy)

Dr. A.P.J. Abdul Kalam, Former President of India, with the Inmates of Cheshire Home, which is a shelter for differently abled people supported by MECON.



SPONGE IRON INDIA LTD. (SIIL)

As against the required 3% of PHC as per the Act, the Company is presently having 1.33%. The shortfall is on account of the fact that the persons belonging to Physically Handicapped category left on VRS and there is no recruitment in the Company since 1995 due to various reasons and presently, the Company is merging with NMDC Ltd. shortly.

Representation of persons with disabilities

(As on 31.12.2009)

Group	Number of employees				Direct recruitment									Promotion				
					No. of vacancies reserved			No. of appointments made			No. of vacancies reserved			No. of appointments made				
	Total	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH	VH	HH	OH	Total	VH	HH	OH
Group A	54	Nil	Nil	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Group B	49	Nil	Nil	Nil	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Group C	125	Nil	Nil	3	-	-	-	3	-	-	-	-	-	-	-	-	-	-
Group D	72	Nil	Nil	Nil	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**300**	**Nil**	**Nil**	**4**	**-**	**-**	**-**	**4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

(i) VH stands for Visually Handicapped (persons suffering from blindness or low vision) (ii) HH stands for Hearing Handicapped (persons suffering from hearing impairment) (iii) OH stands for Orthopaedically Handicapped (Persons suffering from locomotor disability or cerebral palsy)

KIOCL LTD.

KIOCL strives hard to provide appropriate safety and health measures in all the locations and especially where Persons with Disabilities (PWD) are employed and ensures that a particular disability does not come in the way of performance of the jobs allotted to them. The work environment is always maintained in such a manner that productivity/performance of staff with disabilities is in no way impaired by their condition. The details of physically handicapped employees in different groups in position as on Dec 31, 2009:

Group	Number of employees	No. of Disabled			Direct Recruitment	Promotion
		VH	HH	OH	HH	OH
A (Executives)	437	1	-	5	NIL	NIL
B (Supervisors)	33	-	-	-	NIL	NIL
C (Non-Executives)	827	1	1	7	NIL	NIL
D (Non-Executives)	77	-	2	1	NIL	NIL
TOTAL	**1374**	**2**	**3**	**13**	**NIL**	**NIL**

(i) VH stands for Visually Handicapped (persons suffering from blindness or low vision) (ii) HH stands for Hearing Handicapped (persons suffering from hearing impairment) (iii) OH stands for Orthopaedically Handicapped (Persons suffering from locomotor disability or cerebral palsy)



CHAPTER-XV

PROGRESSIVE USE OF HINDI

The Ministry of Steel made greater use of Hindi in official work during the year 2009-10 keeping in view the Annual Programme prepared and issued by the Department of Official Languages [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 consists of one Assistant Director (OL), one Senior Hindi Translator, One Assistant, three Juniors Hindi Translators, and one Peon (sharing basis).

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. Three such meetings have been held upto December, 2009 during the current year.

Hindi Salahakar Samiti

Hindi Salahakar Samiti of this Ministry is under reconstitution.

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 Language Act, 1963 are prepared both in Hindi and English. In order to ensure issue of letters in Hindi to Central Government Offices located in Region "A", "B" and "C", check points have been identified in the Ministry.

Incentive scheme for original work in Hindi

The cash incentive scheme for original work in Hindi introduced by the Department of Official Language is being implemented in the Ministry.

Rajbhasha Shield/Trophies

In order to encourage the use of Hindi in the PSUs under the administrative control of the Ministry of Steel, Ispat Rajbhasha Shield (First Prize), Ispat Rajbhasha Trophy (Second Prize) and Ispat Rajbhasha Trophy (Third Prize), a

Hon'ble Union Minister of Steel, Shri Virbhadra Singh and Steel Secretary, Shri Atul Chaturvedi during the award distribution function for Official Language Implementation at Ministry of Steel, Udyog Bhawan, New Delhi.



Rajbhasha Shield for the PSUs located in Region "C" have been instituted. These are given every year to the Undertakings on the basis of their annual performance in progressive use of Hindi. Besides, a medal is also awarded to the officer/ employee whose work in Hindi is rated to be the best in the Ministry.

Cash prize scheme for dictation in Hindi

An incentive scheme for officers for giving dictation in Hindi is in operation in this Ministry.

Award for writing original books in Hindi

A scheme for awarding cash prizes for writing technical books in Hindi on various disciplines related to the Steel industry and its allied subjects is also in operation in the Ministry. An amount of Rs. 25,000/-, Rs. 20,000/- and Rs. 16,000/- each, is awarded for the first, second and third prize respectively.

Hindi Divas/Hindi Fortnight

In order to encourage use of Hindi in official work amongst officers/employees of the Ministry, appeals were issued by the Hon'ble Minister of Steel and Hon'ble Minister of State for Steel on 14th September, 2009. Hindi Fortnight was organized in the Ministry from 1st September to 14th September, 2009. During this period, various Hindi competitions were organized. Prize distribution function was organized on 05-01-2010. Cash prize and certificate were distributed by the Hon'ble Steel Minister to the winners of Hindi competition.

Training in Hindi/Hindi Typewriting/Hindi Stenography

All officers and staff [except group "D" employees] possess working knowledge of Hindi. As far as Hindi typing and Hindi Stenography is concerned, out of 8 LDCs and 16 Stenographers, 6 LDCs (two LDCs are exempted from typing) and all Stenographers know Hindi typing and Stenography respectively.

JOINT PLANT COMMITTEE (JPC)

The Hindi JPC Monthly Bulletin

JPC succeeded in publishing the first ever JPC Bulletin in Hindi. JPC's Hindi Bulletin presently includes around 16 pages with sections like "Rukh Pratibedan", "Bhawi Yojanae", "Rashtriya Samachar" and "Antarashtriya Samachar". The Hindi JPC Monthly Bulletin is now one of the regular monthly publications of the organization.

Personnel from Finance Directorate of SAIL led by Director (Finance), Shri Soiles Bhattacharya receiving the Chairmain's Rajbhasha Trophy from the then Director Personnel Shri G. Ojha in New Delhi.



STEEL AUTHORITY OF INDIA LTD. (SAIL)

SAIL has continued its thrust on implementation of the Official Language Policy of the Government of India. The Company has won several prizes at the corporate/plant/unit levels, including second prize for its Hindi house journal "Ispat Bhasha Bharti" and another prize for the best implementation of Hindi in official work from the Town Official Language Implementation Committee, Delhi. Further, SAIL bagged "Sahasrabdi Rashtriya Rajbhasha Shield" for excellence in implementation of Hindi from Rashtriya Hindi Academy, Rupambara and the "Academy Rajbhasha Patrika Shield Samman" for the "Ispat Bhasha Bharti" In addition, CMO Headquarter, SAIL has bagged second prize for excellent implementation of Hindi in region 'C' from the Department of Official Language, Ministry of Home Affairs for the year 2008-09.

Moreover, in the area of Hindi Computerisation, 47 jobs have been done through integrated system with the help of C&IT department (Software Group). Thus, SAIL is the first PSU which has used ORACLE platform for Hindi Computerisation through integrated system which has been acclaimed by the different forums.

In addition, Shri Suresh Tiwari, Assistant General Manager, Operations Directorate, SAIL Corporate Office, has received "Indira Gandhi Rajbhasha Puraskar 2007-08" (consolation prize) from Her Excellency, President of India, Smt. Pratibha Devisingh Patil at a function held at Vigyan Bhawan on 14th September 2009.

RASHTRIYA ISPAT NIGAM LTD. (RINL)

RINL received the prestigious "Indira Gandhi Rajbhasha Shield" from Her Excellency, President of India, Smt. Pratibha Devisingh Patil at a function held at Vigyan Bhawan on 14th September 2009.

In addition to the fulfilment of various obligations under Official Language Policy of the Government of India, RINL has taken up several activities to propagate Hindi in and around the company and its township. Hindi classes are being organised separately for the housewives. A 'Rangarang Virat Hasya Kavi Sammelan' was organised in April 2009. Four Special Hindi Workshops were conducted for the officers of DGM and above. A National level Hindi Seminar was organised on the topic viz. 'Importance of building good habits in industrial employees' in July 2009. A special issue viz. 'Sanskar' has been released on this occasion containing the articles of the delegates.

Hindi Week celebrations were organised in September, 2009. On this occasion various Hindi competitions have been organised for the students, employees and their dependents and prizes were distributed to the winners. Hindi Day celebrations were also organised in Regional Offices of Marketing Department in October, 2009.

Employees were trained on computers in Hindi. 120 employees have been trained in Hindi Prabodh/Praveen classes till December 2009.

NMDC LTD.

Successful efforts for the implementation and progressive use of Official Language were made by NMDC Ltd. in all its production Units and Head Office during the year 2009-10.

Training in Hindi was imparted to the employees. Hindi-Workshops were also conducted for the officers and employees having working knowledge of Hindi. Various programme such as "Hindi Divas, Hindi Pakghawada, Rajbhasha Maah", District level competitions in Hindi etc were organized during the year to bring awareness among the employees and their family members and also among the employees of other offices situated in and around Head Office and various production Units. Incentive Schemes at Central and Regional level were implemented and suitable prizes were awarded to the eligible employees.

Rajbhasha Technical Seminars in Hindi were organized during the year in Production Units. Rajbhasha Souvenir and technical seminar books were also published. Apart from these publications - Hindi House Journals viz. NMDC Patrika published bi-lingual along with Baila Samachar, Bacheli Samachar, and Hira Samachar - monthly Hindi bulletins and Doni-Samachar-tri-lingual monthly bulletin were published.

During the year, NMDC Ltd. has also conducted Hindi Officers Meet in which Hindi Officers of all the PSUs of Steel Ministry including Hindi Officers from the Ministry participated.

NMDC Ltd. was awarded the Government of India's Indira Gandhi Rajbhasha Puraskar (2nd prize) for excellent implementation of the Official Language policy and progressive use of Hindi amongst the PSU's of Region 'C' for the year 2007-08. Shri Rana Som, CMD, NMDC Ltd. received the shield from Her Excellency, President of India, Smt. Prathibha Devisingh Patil at a function held at Vigyan Bhawan, New Delhi on 14th September, 2009.



NMDC received "Steel Ministry's Rajbhasha Shield" for excellent implementation of the Official Language Policy on 10th February 2009

NMDC Ltd. was also awarded Rajbhasha Shield-1st prize for the year 2008-09 by Town Official Language Implementation Committee (Undertakings) Hyderabad-Secunderabad, for excellent implementation of the Official Language Policy amongst the PSUs situated in twin cities.

MANGANESE ORE (INDIA) LTD. (MOIL)

During the year, the Company continued its efforts in propagating and implementation of the provisions of official language Act 1963. The Company is also publishing In-house Journal " SANKALP" in Hindi in order to encourage the employees to participate in various competitions like essay competition, noting, drafting, poetry and articles for propagating hindi. Around 97% of the work is being done at Mines in Hindi. The Unicode system has been implemented in all computers of the company. The company has provided Hindi language software for imparting training to its employees. MOIL has been awarded with 3rd position in "Ispat Rajbhasha Trophy" by the Ministry of Steel for excellent works in Hindi.

Employees are being given re-training under the "Hindi Education Scheme" of the Ministry of Home Affairs, in which 85 employees have already been given training for Pragya (Higher Level) and efforts are being made to train another 40 employees/officers of the Company. In coming years, MOIL envisages to organise more training programmes in all mines of the Company. It also envisages to organise the " Hindi Karyashalas" on large scale to improve the knowledge and to increase efficiency in Hindi, so that the work efficiency in Hindi could be increased among the employees.

FERRO SCRAP NIGAM LTD. (FSNL)

FSNL has been awarded with the Prestigious "Indira Gandhi Rajbhasha Shield" (1st prize), by Her Excellency, President of India, Smt. Prathibha Devisingh Patil on 14th September 2009 for doing excellent work in the area of implementation of Official Language Policy.

In order to encourage and motivate the employees to carry out their day-to-day jobs in Hindi, "Hindi Diwas" and "Hindi Pakhwada" are organised in the company and various Hindi competitions, like Hindi essay writing, Hindi gyan pratiyogita/Hindi debate etc., are conducted, and the winners are suitably awarded.

Her Excellency President of India Smt. Pratibha Devisingh Patil presenting the prestigious "Indira Gandhi Rajbhasha Shield" (1st prize) to Shri Antony Chacko, Managing Director, FSNL on 14th September 2009 for FSNL's efforts towards implementation of Official Language Policy.



The guidelines/directives of the Government/Ministry with regard to implementation of the Official Language Policy are strictly adhered to and implemented in the company.

On passing the Hindi exams of Prabodh, Praveen and Pragya, by the employees, the company gives lump sum cash awards under the "Hindi Protsahan Yojna" to such employees. Further, on passing the Hindi stenography/Hindi typewriting exams also, cash awards are provided to the concerned individuals under the scheme.

Apart from the above, in order to create interest among the employees to carry out their day-to-day jobs in Hindi, the company gives annual cash awards to those employees who win the Hindi noting/drafting and Hindi typing competitions, as per the scheme, which are conducted during Hindi Pakhwada.

In view of the exemplary work done in implementation of Hindi, the company has been achieving prestigious awards from the Ministry, including the Indira Gandhi Rajbhasha shield, Ispat Rajbhasha shield, Rajbhasha trophy etc.

Employees were also nominated for participating in various Hindi competitions by the member concerns of Nagar Rajbhasha Karyanvayan Samithi, Bhilai-Durg and the nominated employees bagged various prizes in such competitions.

MSTC LTD.

MSTC Ltd. celebrated Rajbhasha Trimas. During Trimas, Hindi workshops and extempore competitions were organised in MSTC's head office, regional offices and branch offices. Hindi workshops were organised in all offices of the corporation. The Ministry of Steel inspected MSTC's Mumbai and Vizag offices. All the issues related to the inspections were made available. The Ministry of Steel and the Hindi Salahkar Samiti have continuously provided guidelines for implementation of the official language.

HINDUSTAN STEELWORKS CONSTRUCTION LTD. (HSCL)

The company has made various encouraging efforts in implementing the official language policy and programmes 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, the company has made massive drive to motive its officials at all levels for use of Hindi in official noting and drafts. The Government's guidelines on the use of Rajbhasa are compiled with. Hindi Day and Hindi Fortnight were observed.

MECON LTD.

Efforts by way of Hindi Training of Personnel, organising workshop and seminar to encourage use of Hindi in Official work have been undertaken and conducive atmosphere has been created to spur use of Hindi in Official work at Head Office and other offices of MECON.

"Rajbhasha Saptah" was observed in Head Office as well as in all site offices of the company from 14.09.2009 to 19.09.2009. On the occasion, all employees took pledge to increase use of Hindi in their day to day official work. During the "Rajbhasha Saptah", competitions of various nature were also organised at Head Office and other offices of the Company.

A Technical Seminar in Hindi was also organised by MECON on the subject "Hindi Men Takniki Lekhan : Uplabdhiyan Evam Chunautiyan". In addition, a Hindi Magazine - "MECON BHARATI" is being published regularly, which provides platform to employees for creative writing in Technical field .

SPONGE IRON INDIA LTD. (SIIL)

During the period from 01.04.2009 to 31.12.2009, the Section 3(3) was cent percent complied with and under this provision 166 documents were released in bilingual form. All rubber stamps, names plates were prepared in bilingual/ trilingual form as per requirement. Different schemes introduced for progressive use of Hindi such as Learn Hindi Words, Hindi correspondence, noting and drafting and competitions in Hindi were continued. Songs competitions in Hindi was conducted and prizes were distributed to the winners. Hindi co-ordinator and members were nominated for effective implementation of Official Language. Hindi Day was celebrated on 14.09.09 and mementos were awarded to the winners. A Hindi workshop was conducted for 15 days. Photo exhibition was conducted from 02.12.09 to 03.12.09,



the photographs covering from 1985 to till date were displayed in the exhibition. Students and employees attended the programme.

KIOCL LTD.

The Company follows the directives issued from time to time by the Department of Official Language, the Ministry of Home Affairs and the Ministry of Steel, Government of India for progressive use of Official Language:

- Rastriya Hindi Academy conferred the Company with "Sahasrabdi Rastriya Rajbhasha Shield" on 02-10-2009 for its Official Language Implementation.
- Hindi training is given to the employees. Cash awards and increments are given as per the Government directives. Hindi Workshops, Orientation programmes are conducted regularly to create awareness, impart knowledge and encourage the employees to do their Official work in Hindi. Cash awards are given to such of those employees who do the official work in Hindi.
- All the stationery, name plates and name boards of the company are in bilingual form. The Annual Report, MoU, House Magazine, Employees' Pension Scheme, etc., are printed in Hindi also. Hindi Software is provided in Computers in all Departments.
- Official Language Implementation Committee meetings takes place regularly and the progress during the previous quarter is reviewed in such meetings. Hindi fortnight was celebrated at all the locations of the Company. Hindi programmes and several Hindi competitions were held and prizes distributed to the winners. Cash prizes were also given to employees for doing their office work in Hindi.
- During the year, 3 Hindi workshops were conducted to impart practical training to employees for doing their official work in Hindi.
- The company was conferred "Sahasrabdi Rastriya Rajbhasha Shield" by Rastriya Hindi Academy on 02-10-2009 for its Official Language Implementation.
- The company is Convenor of Bangalore Town Official Language Implementation Committee (Undertakings) and conducts regular meetings and Joint Hindi Fortnight programmes for all Central PSUs in Bangalore. Last meeting was conducted on 7th January 2010 and presided by the Chairman-cum-Managing Director.
- KIOCL organized a Joint Hindi Fortnight for our Town Official Language Implementation Committee (Undertakings) members and 15 Hindi Competitions were conducted. Most of the PSU offices in Bangalore have participated in these competitions. Prize distribution function was organized in January. Officers of Official Language Department, Ministry of Home Affairs were also invited to address the members.
- The company has brought out 2 issues of half yearly Hindi Magazine named "Deepika" under TOLIC banner which covered Official Language Implementation activities of Bangalore PSUs and included good articles on Hindi promotion.



CHAPTER-XVI

EMPOWERMENT OF WOMEN

INTRODUCTION

The Hon'ble Supreme Court of India in its judgment in August 1997, in the case of Visakha and others versus State of Rajasthan and others, recognised 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 Hon'ble 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 Complaints Committee with representatives from outside the organisation was constituted.

In compliance of the guidelines of the Hon'ble Supreme Court, Ministry of Steel has constituted a five-member Committee, headed by a Joint 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 2009-10, which is a broad indicator of general satisfaction of women work force in the Ministry.

All the public sector undertakings under the Ministry of Steel have also been directed to implement the Hon'ble Supreme Court's guidelines. The related details are briefly enumerated below:

Empowerment of women

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 for implementation of the concept in this Ministry.

STEEL AUTHORITY OF INDIA LTD. (SAIL)

Equal opportunity employer

Total number of women employees as on 31.12 2009 is 6792.

Recognizing that gender equality and empowerment of women leads to faster progress of society, a Mahila Samaj was formed in 1957 in Bhilai when the industrial complex was just coming up. Since then this revolutionary institution,

Empowering women to earn their livelihood at Salem Steel Plant (SAIL).



which started with just 50 members on August 4, 1957 has inspired other SAIL plants to develop their ladies society / groups as well which have become the pioneer of community welfare and has been given the status of an ancilliary industry by SAIL. These various plant level organizations today have a total of 4000 members and 15 affiliations with national-level organizations. They undertake various activities especially those involving women from the weaker sections or belonging to SC/ST communities. The members, through internal revenue collections, have been conducting / operating various functions, including manufacturing of hand gloves, masala, soaps, bags, etc., and contributing to women's colleges and for rehabilitation of the differently-abled and many other similar activities.

The achievements of SAIL in affording accessibility to employment to women coupled with those of Mahila Samaj for impoverished women are significant. In India, the Gender Equality Index (GEI) measures the attainments of human development indicators by women and contrasts it with those attained by males. It has been reported that GEI rose marginally from 62% in 1980s to 67.6% in 1990s. From this it may be inferred that on an average, the attainments of women is only two-thirds of that of men.

Contribution of Women :

Products made for SAIL Employees	Hand Gloves, Spices, Soaps, etc.
Community Welfare	Sewing / Embroidery Centres, Creches, Kindergarten Schools, Schools for Special Persons, Adult Education, Children's Library, Health and Hygiene Education, Psychological Support to ill-treated tribal women, Medical Centres and Dispensaries, running of Petrol-Pump at Bhilai
Workshops	Workshops conducted by women on Banking, Insurance, Rights of Women, Information Technology, Civic Facilities
Assistance during Natural Calamities	Kargil War Relief, National Defence Fund, Cholera Control, Orissa Flood / Cyclone Relief, Welfare for poor women, Orissa Chief Minister's Blood / Drought Relief Fund, Gujarat Earthquake, etc.

RASHTRIYA ISPAT NIGAM LTD. (RINL)

Recognizing the special needs and attention that is required for women employees, RINL/VSP facilitates the women workforce to be closely knit through the local cell of Forum of Women in Public Sector (WIPS).

Keeping in view the statutory provisions, the objectives of the Company and the objectives of the Forum of WIPS, measures are taken to provide an enabling working environment wherein the women employees can achieve their full potential.

Training and Development programmes aimed at career advancement, women empowerment, personality development, gender sensitization, safety awareness, occupational health, osteoporosis awareness, interpersonal skills, computer skills, communication skills, capacity building, work life balance, leadership and safe and healthy living etc. have been organized. During the year, about 350 women employees were covered in such programmes. Women employees have also been nominated for external program like Regional and National Meet of WIPS, Workshops like "Women Employees-Opportunities and Challenges". Some of the notable programmes during the year are:

- Week long women empowerment programme conducted for the first time
- Three gender sensitization programmes covering 45 employees of each gender
- Safety awareness and Occupational health programme for women contract workers covering 45 participants.
- Osteoporosis Awareness program covering the ladies from all walks of life i.e. employees of VSP, PSUs and Schools in the township, CISF and housewives, in association with Visakha Steel General Hospital and Osmania General Hospital doctors. About 75 women underwent Bone Mineral Density (BMD) tests in this program.

Gender sensitivity of women development programme was organized during Nov '09 with the help of Center for Women's Studies, Andhra University, Visakhpatnam.

Women achievers are invited as guest speakers to address and share their experiences. Smt. D Purendereswari, Hon'ble Minister of State for HRD, Smt. Ranjana Kumar, Vigilance Commissioner, GOI and Dr. Soumya Mishra, DIG (Rural), Visakhapatnam Range are some of the dignitaries for the year 2009-10.

Women employees are provided an opportunity to interact with CMD and Directors of the company as well as visiting dignitaries like Secretary, Ministry of Steel, visiting panel of judges for various trophies and awards like PM's Trophy etc.,



Women Empowerment Week celebration at RINL.

Women employees are nominated members of various intra-organizational committees like recruitment, promotion and safety committees and inter-organizational committees like Inter-Plant Steel Standards. They are also auditors for ISO and OSHAS. One of the women employees was also nominated to participate in the International Convention on Quality Control Circles.

In order to support women employees, a crèche has been provided in the township which is managed by local cell of WIPS. The facilities for the crèche are provided by RINL/VSP. New Year's Day and Children's day are celebrated in the crèche every year.

Women employees are provided opportunities to express their talent through the intranet portal and House Magazine "DISHA".

NMDC LTD.

NMDC Limited employs 268 women employees which constitute about 4.5% of its total manpower of 5948 (as on 31.12.2009). The company provides equal opportunities for the sexes at all levels be it selection, recruitment, placement or promotion. The number of women in senior positions is growing and two independent Directors in NMDC board are women.

Facilities like separate wash rooms, rest rooms/ Lunch rooms etc have been provided in the Head Office and various projects. NMDC has also been sponsoring women employees for training on awareness on healthcare, family planning etc. All statutory obligations of the Company are reflected in its policies for women employees.

In compliance to the directives of the Hon'able Supreme Court guidelines relating to sexual harassment of women employees at work place, Complaints Committee have been constituted in all the Project and Head Office. The Committee, headed by a woman employee, meets periodically to review the status of the complaints received. No case of harassment have been reported so far. The directives have been widely circulated and the Conduct Rules have been amended in the year 1998 incorporating suitable clause for prohibition of sexual harassment of women at work place.

NMDC Limited has made sincere efforts to increase the awareness of women in general in the remote areas where it has its mines. Various awareness programmes have been conducted on health care, family planning antenatal services, informative programmes on AIDs control and other social issues with the active involvement of the Mahila samities functioning in the projects.



MANGANESE ORE (INDIA) LTD. (MOIL)

MOIL employs 799 women employees which constitute 11.84% of its total workforce of 6747 as on 31.12.2009.

In compliance of the directives of the Hon'ble Supreme Court, guidelines relating to Sexual Harassment of Women workers at work place were issued by Govt. of India, Ministry of Human Resources Development. Accordingly, a Complaints Committee comprising of three officials including a lady Doctor was constituted in the year 1999. 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 organised regularly, mostly for the benefit of the women residing in the remote mine areas. Every year, March 8 is celebrated as International Women Day and various programmes are organised to mark the day. Company grants Maternity Leave and Special Casual leave for Family Planning. Company has set-up creches at its mines and gives time off for nursing mothers. 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.

MSTC LTD.

MSTC Ltd. is a corporate life member of the Forum of Women in Public Sector (WIPS) and in the year 2009-10, a number of women employees have participated in the programmes organised by the WIPS.

FERRO SCRAP NIGAM LTD. (FSNL)

The work culture of FSNL is quite conducive for the women employees. Due importance is given to the women employees in all activities, including recognition of their abilities in various competitions/areas. One woman representative is invariably involved in various committees formed by the company, such as Committee for Prevention of Sexual Harassment etc.

HINDUSTAN STEELWORKS CONSTRUCTION LTD. (HSCL)

The break up of woman employees in the company as on December 31, 2009 is as below:

Executive: 3 **Non-executive: 7** **Worker: 37 Total: 47**

These woman employees are scattered in different units. Most of the women employees are posted at Bokaro and Bhilai. No organised body of women employees exists in the company. It is ensured by the company's management that the interest of the woman employees are protected. It is seen that they are not subjected to any sort of sexual harassment in the workplace.

MECON LTD.

There is a Committee constituted with a Senior Lady Engineer as its Chairman to look into the grievance or complaints of women employees in the Company.

SPONGE IRON INDIA LTD. (SIIL)

As per guidelines received from Hon'ble Supreme Court of India and also Ministry of Steel, the Company has constituted a Complaints Committee of Women for redressal of the complaints made by the women employees. As on date, the company has 20 women employees.

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.

Based on Hon'ble Supreme Court Directives, conduct rules of the Company has been amended by incorporating suitable clause for prohibiting sexual harassment of women at work place. A Complaints Committee has been constituted during September 1998 to deal with complaints made by victims of sexual harassment. The Complaints Committee



International Women's Day being observed at KIOCL Ltd.

comprises of a Women Executive at the level of Dy.Manager as a Chair person, three nominated women representatives and Lady Advocate from High Court of Karnataka as a III 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/Regional meets of WIPS by the Company. International Women's Day was celebrated in a befitting manner in KIOCL.

BIRD GROUP OF COMPANIES (BGC)

Bird Group of Companies employs 333 women employees, which constitute 16.12% of its total workforce of 2061 as on January 01, 2010.



CHAPTER-XVII

NEW INITIATIVES/ INNOVATIVE SCHEMES

MAJOR INITIATIVES OF THE MINISTRY OF STEEL

Meetings of the Inter Ministerial Group (IMG)

Hon'ble Prime Minister had approved the constitution of an Inter Ministerial Group (IMG) in July 2007 to monitor and coordinate various issues concerning major steel investments in the country. The IMG is chaired by Secretary (Steel) with Secretaries of Department of Industrial Promotion and Policy, Mines, Environment and Forest, Road Transport and Highways, Shipping, Member (Traffic) - Railway Board and Chief Secretaries of concerned State Governments as its members. The IMG reviews and coordinates measures for early completion of the major steel capacities and addresses various problems concerning:

- Infrastructure constraints related to ports, rail, road network
- Availability of iron ore and coal
- Speedy environmental clearance for project site as well as for iron ore and coal mining activities
- Availability of land, water resources and issues concerning rehabilitation
- Any other item concerned with the major steel investments in the country

IMG is conducting review meetings periodically, both with the major steel investors as well as with the Central Ministries/ Departments and the State Government concerned. The last meeting of IMG was held at New Delhi on 25.08.2009 and the next meeting is proposed in February 2010.

Quality Control Order on selected steel products

Steel Quality Control Orders to ensure making available 17 critical steel products of certified quality to consumers were issued during 2008. The order has since been revised subsequently whereby 10 products have been excluded.

Joint Consultative Mechanism with Railways

A Joint Consultative Mechanism has been constituted by the Ministry of Steel with representatives of the Ministry of Railways, the Ministry of Steel and the Steel Industry (both public and private sector) to address their increased infrastructure needs in line with the National Steel Policy as well as the rationalisation of freight class for transportation of steel items and raw materials such as iron ore and limestone.

Hon'ble Union Minister of Steel , Shri Virbhadra Singh at the inaugural function for modernisation and expansion of Bhilai Steel Plant (SAIL).



Consumer Council Meeting

A Forum of Steel Consumer Council to facilitate regular interaction of producers and consumers and redress the problems faced by the consumers relating to supply/availability of steel products and other related issues had been set up in the Ministry. The Meetings of Consumer Council were held in 2008-09, under the Chairmanship of the Hon'ble Steel Minister. The various issues affecting the consumers of Steel namely opening of new stockyards and monitoring of their working, monitoring of the trend of domestic steel prices, review of prevailing excise and import duties and availability of steel material, figured prominently in the meeting.

Special Purpose Vehicle

International Coal Ventures Limited (ICVL), a Special Purpose Vehicle, with equity participation to an extent of Rs. 3,500 crore by SAIL, RINL, Coal India Ltd, NMDC and National Thermal Power Corporation Ltd for acquisition of metallurgical and thermal coal assets abroad has been incorporated. ICVL will function like a Navratna company with powers to clear proposals involving investment of upto Rs. 1500 crore. ICVL is assisted by a panel of investment bankers on acquisition of coal assets abroad through equity purchase, JVs in existing mines or Greenfield projects in Australia, Canada, Indonesia, Mozambique, Russia and USA.

Encouraging Research & Development in the Iron & Steel Sector

Besides supplementing R&D initiatives and investments under the existing Empowered Committee Mechanism, the Ministry of Steel has evolved a new scheme to encourage R&D in the Iron & Steel sector during the 11th Five-year Plan.

A new scheme named 'Scheme for promotion of R&D in the Iron & Steel Sector' has been launched with budgetary provision of Rs. 118 crore. The scheme will be implemented in the 2009-10.

Mega Expansion Plans of SAIL, RINL and NMDC Ltd.

The steel PSUs are in the midst of ambitious expansion plans. The major thrust of the modernisation and expansion plans is to adopt the best modern technology, which in addition to being cost effective should also be energy efficient and environment friendly.

STEEL AUTHORITY OF INDIA LTD. (SAIL)

Expansion and Modernisation of SAIL

The Expansion and Modernisation Progamme of the Steel Authority of India Limited (SAIL) is in progress at its steel plants to enhance the hot metal production capacity. Recently after onset of global recession and in view of the pressure on steel prices and possibility of diminished margins, a review of overall Expansion and Modernisation plans was carried out in SAIL. The proposed production built-up, as envisaged originally to go upto 26.18 million tonnes per annum, is now to be achieved in two phases. In phase-I the capacity would be ramped upto 23.46 million tonnes and this would be increased to 26.18 million tonnes in phase-II.

The phase-I at a cost of about Rs. 70,000 crore is planned to be completed by 2012-13. The progress of the expansion of SAIL is monitored on regular basis by the Ministry and efforts are being made to ensure that projects are completed on time.

Merger/acquisitions/revival and restructuring of PSUs/Companies

Maharashtra Elektrosmelt Ltd (MEL): Maharashtra Elektrosmelt Limited located at Chandrapur in Maharashtra is the largest producer of Manganese based Ferro Alloys in the country and has been engaged in the business of Ferro Alloys since April, 1974. It was taken over by Steel Authority of India Limited in 1986. It is a subsidiary of SAIL, with SAIL holding 99.12% of shares. After obtaining "No Objection" from Government of Maharashtra for transfer of MEL land in favour of SAIL in June '09, Draft Scheme of amalgamation of MEL with appointed date of merger as 1.4.2010 has been approved by the Ministry and has been filed on 7.12.2009 with the Stock Exchanges where SAIL and MEL are listed for their approval. Thereafter, the Scheme would be filed with the Ministry of Corporate Affairs for issue of the Order of Amalgamation.



SAIL Refractory Unit - erstwhile Bharat Refractories Ltd (BRL): Final Order for merger of BRL with SAIL was published in the Gazette Notification of GOI dated 28th July 2009 with the appointed date of the merger as 1.4.2007. After the merger with SAIL, the erstwhile BRL has been renamed as "SAIL Refractory Unit". The revival of the unit is under progress and the performance of the plant has improved by about 21% in Q3 2009-10 over corresponding period of last year.

Take over of Refractory Unit of Burn Standard Company Ltd. (BSCL) at Salem: BSCL's Refractory Unit at Salem produces a range of refractory items and caters to the needs of the Steel, Cement, Glass, Copper, Petro-chemical and other non-ferrous industries. The Salem Works of BSCL, in addition to producing refractory bricks, is also selling Calcined Magnesite, Dead Burnt Magnesite, Dunite, Smoke Dust etc. in open market. In the 69th Meeting of Board for Reconstruction of Public Sector Enterprises (BRPSE), held in June 2009 for considering restructuring proposal of Burn Standard Company Ltd., BRPSE recommended transfer of Refractory Unit of BSCL at Salem to Ministry of Steel (MoS)/SAIL. SAIL Board, thereafter, in July 2009 accorded in-principle approval for merger/acquisition of Refractory Division of BSCL at Salem with/by SAIL preferably as a subsidiary company of SAIL, to be incorporated for the purpose. DHI is in the process of resolving various issues in consultation with MoS for take over of Refractory Unit of BSCL at Salem by MoS/SAIL.

Jagdishpur Steel Plant - erstwhile Malvika Steel Ltd. (MSL): SAIL purchased assets (i.e. land along with building, plant and equipment and other fixed assets) of erstwhile M/s Malvika Steel Ltd. (MSL), a division of Usha (India) Limited, and located at Jagdishpur in District Sultanpur, Uttar Pradesh, through auction by Debt Recovery Tribunal (DRT)-I, Delhi and has taken over the possession of the same in February, 2009. SAIL is in the process of developing the assets of "Jagdishpur Steel Project" in phased manner, starting with an annual production capacity of 1,73,000 tonnes of TMT Bars, Crash Barriers and Galvanised Corrugated Sheets.

Joint ventures (JVs) and MoUs entered into by SAIL

JV with NMDC : SAIL and NMDC have entered into a Memorandum of Understanding (MoU) to jointly develop the limestone mine at Arki located in the Solan district of Himachal Pradesh in 50:50 Joint Venture (JV). Total envisaged production capacity is 3 MTPA, of which 1 MTPA would be lumps and 2 MTPA would be fines. SAIL and NMDC would procure limestone lumps from the JV and the limestone fines would be sold to nearby cement plants. After development of the Arki limestone mine, SAIL will have a captive source of limestone and an advantage of assured supplies of this critical raw material of good quality at reasonable price.

JV with Govt. of Kerala (GOK): The Steel Complex Ltd (SCL) with a 50,000 tonne per annum capacity for producing continuous cast billets had approached SAIL for necessary help for its revival. Steel Authority of India Ltd (SAIL) signed an MoU with the Government of Kerala (GoK) for revival of SCL through formation of a JV with SAIL holding upto 50% of equity and the balance held by GoK and others. The JV agreement was signed between SAIL and SCL in December '2008 for setting up a rolling mill of 65,000 tonnes per annum. Government of Kerala after clean slating the balance sheet of SCL and after obtaining clearance from Board for Industrial and Financial Reconstruction (BIFR) would issue final clearance for transfer of up to 50% shares of SCL in favour of SAIL.

JV with Manganese Ore (India) Ltd.: SAIL has signed a Joint Venture Agreement with MOIL and a JV company namely "SAIL MOIL Ferro Alloys Pvt. Ltd" has been incorporated on July 31, 2008. Further processes are going on to commence the project within the scheduled framework. It has been decided to set up a ferro alloy plant comprising of 1x16.5 Mega Volt Ampere (MVA) capacity furnace for production of high carbon Ferro Manganese and 2x27 MVA capacity furnace for production of Silico Manganese at Village Nandini, Bhilai (Chattisgarh) with initial investment of Rs. 10 crore under this JV company.

JV with Shipping Corporation of India (SCI) Ltd.: SAIL is in the process of formation of a JVC with SCI to take care of its shipping related needs. Subsequent to signing an MoU with SCI, the draft Joint Venture Agreement has been approved by SAIL Board in July 2009. The modalities for JV company formation and related shipping activities are likely to commence in the first quarter of 2010 once the same is cleared by SCI Board.

JV with Larsen and Toubro (L&T): To meet the enhanced power requirements of SAIL by 2020, an MoU has been signed with Larsen and Toubro on September 30, 2008, for a strategic alliance to acquire and develop thermal coal blocks and set up 1680 MW capacity power plants using super critical technology. The preparation of draft JV agreement is in



progress and the proposed JV will acquire thermal coal blocks and develop them. Based on the allocation of thermal coal blocks and their location, the actual site for setting of thermal power plant would be decided.

JV with TATA Steel: SAIL and Tata Steel have formed a Joint Venture company for coal mining in September, 2008 namely "S & T Mining Co. Pvt. Ltd". The headquarters of the JV Company is at Kolkata (West Bengal). The Company has started functioning. They are exploring the possibilities for acquisition of Coking Coal Block. CIL has short listed S&T Mining Co. as one of the suitable partner for JV to operate already closed mines.

Strategic Alliance with POSCO: SAIL and POSCO entered into a MoU in August, 2007 for a strategic alliance for information sharing in areas related to corporate strategic planning, exchange of professionals, know how and expertise sharing. Subject to mutual negotiations, it also provided for collaboration and cooperation in areas pertaining to joint research and development projects and joint ventures mutually agreed upon.

An MoU has been entered between SAIL and POSCO for a strategic alliance for information sharing.

In terms of the above MoU, SAIL and POSCO entered into another MoU in August 2009 for possible joint venture initiatives in area of :

- Manufacture and commercialization of CRNO
- Exploration of upstream and downstream opportunities in utilising FINEX technology.

The MoU provides that based on joint feasibility study, definitive agreements may be entered into subject to approval of respective Boards. A Joint Task Force of SAIL and POSCO officials is working on the pre-feasibility report.

RASHTRIYA ISPAT NIGAM LTD. (RINL)

Expansion plan

RINL is in the process of almost doubling it's capacity to 6.3 Million tonnes of liquid steel in phases, by the year 2011, at an estimated cost of around Rs.12,228 crore. The major facilities coming up in the on-going expansion phase include Blast Furnace, Sinter Plant, Raw Material Handling Plant, Steel Melting Shop and Finishing Mills. The newer technology being adopted in expansion are environment friendly and energy efficient and envisaged with higher productivity and yield. The expansion facilities will also enrich VSP's product mix and quality.

VSP has partnered with some of the reputed technology suppliers for supply, installation and commissioning of the units. Orders have been placed for all major packages. Structural fabrication, erection and equipment supply and erection are in full swing, with Stage-1 units expected to be commissioned in 2010-11. With the completion of this phase of expansion, RINL will be able to meet part of the growing demand of steel like wire rods, bars, channels, angles, beams etc.



Merger/acquisition/revival and restructuring plans

RINL has taken a number of initiatives for growth of business of the company in addition to its expansion plan, which includes formation of Joint Ventures, acquisition of assets, mergers etc. both in India and abroad. VSP has been very actively exploring various options to ensure its raw material security through acquisition / JV route. Some of the major initiatives towards pursuing iron ore and coking coal assets are given below:

BIRD group of companies: Union Cabinet in it's meeting held on 10.09.09, has approved the restructuring proposal of BIRD group of companies. In the proposed restructuring, OMDC and BSLC will be made subsidiaries of EIL, which in turn will be made subsidiary of RINL, thus bringing EIL, OMDC and BSLC under the umbrella of RINL. The other two companies viz. KDCL and SSL would be phased out.

ICVL: RINL is also pursuing coal assets overseas through International Coal Ventures Ltd (ICVL) which was formed with equity participation by NMDC, CIL, NTPC, SAIL and RINL to acquire metallurgical and thermal coal assets overseas. ICVL was incorporated on 20.05.09.

NINL: RINL is discussing to acquire majority stake in Neelachal Ispat Nigam Ltd (NINL) which has adequate infrastructure and other facilities for expansion. The move is envisaged to impart synergy to both the companies as it would satisfy RINL's basic requirement of raw material from the mines owned by NINL, and further that may be allocated by Orissa Govt. and simultaneously allow investment by RINL in NINL's future modernization and expansion plans. Financial and technical due diligence has already been carried out by a consultant.

Modernisation/ Rejuvenation: RINL is in the process of modernizing and upgrading it's existing facilities to sustain the current production and productivity levels and also to reduce energy consumption, improve technological parameters. RINL plans to carry out major capital repairs / revamp of equipment to bring back high production levels and productivity in the plant. Some of the projects include capital repairs of Blast Furnace-1 and 2, revamp of Converters, modernisation of Sinter plant etc. and several other projects for upgradation of technology subscribing to pollution control requirements besides improving quality and product deliverables. This is yet another major initiative taken by RINL. Some of the units commissioned/upgraded during the period Apr-Dec '09 are:

- Commissioning of New Microbiological and Chemicals Treatment (MBC) plant
- Commissioning of the Converter lining profile measurement system in Steel Melting Shop
- Upgradation of Control and Instrumentation system of Turbo Generator - I
- Replacement of 2 nos. of Chillers having Ozone depleting refrigerant with Ozone friendly refregerent
- Replacement of Acetylene gas with more clean and economical LPG for Blooms cutting

Enterprise Resource Planning (ERP): RINL started the process of implementing ERP- Ukku Sankalp, to have a single transaction database which is shared, updated across the entire organization for seamless integration and improving internal efficiencies. Implementation of ERP is a giant step forward taken to enable RINL to meet the competition in the future.

NMDC LTD.

New Initiatives/New Projects

- Development of Bailadila Dep-11B mine with 7 mtpa capacity.
- Development of Kumaraswamy mine, Karnataka with 3 mtpa capacity (expansion to 7 mtpa)
- Pellet Plant at Chhattisgarh with 2 mtpa and at Karnataka with a capacity of 1.2 mtpa.
- Integrated Steel Plant at Jadgalpur, Chhattisgarh State with 3 mtpa capacity.
- Entering into mining of Coal for captive use / merchant miner.
- Revival of Arki Lime Stone Project at Himachal Pradesh.
- Revival of Panthal Mangesite Project, Jammu

Merger/Restructuring of PSUs

Acquisition of M/s Sponge Iron India Ltd., by NMDC is in advance stage and is likely to be completed shortly.



- **Joint Ventures/ Signing of MoUs**
  - Joint Venture with Chhattisgarh Mineral Development Corporation (CMDC), Chhattisgarh State for developing Bailadila Dep-13 with 8 mtpa capacity (expansion to 10 mtpa).
  - Joint Venture with CMDC, Chhattisgarh State for developing Bailadila Dep-4 with 4 mtpa capacity.
  - MoU signed with Tata Steel Limited to explore the possibilities in setting up Steel Plants, value addition projects and resources jointly in India and Abroad.
  - MoU signed among Department of Mines and Geology (DGM), Andhra Pradesh Mineral Development Corporation (APMDC) and NMDC for exploring and exploiting iron ore and Gold deposits in Andhra Pradesh.
  - MoU signed between NMDC and DMG, Govt. of Jharkhand for exploration of various minerals in the State of Jharkhand.

BIRD GROUP OF COMPANIES (BGC)

Restructuring of Bird Group of Companies

The Cabinet has approved the restructuring of Bird Group of Companies under the Ministry of Steel in its meeting held on 10.09.2009. In the restructuring process, the following has been approved and necessary steps are being taken to implement the same:

- EIL will be made subsidiary of RINL thus bringing EIL, OMDC and BSLC under the umbrella of RINL.
- OMDC and BSLC shall be made subsidiary companies of EIL.
- Winding up of KDCL and SSL. The employees are adjusted in OMDC and have been offered Voluntary Retirement Scheme (VRS).

OTHER MAJOR INITIATIVES

SAIL

Setting up of Steel Processing Units (SPUs)

SAIL has planned to set up Steel Processing Units (SPUs) at various locations in Bihar (Bettiah, Mahnar, Gaya); Uttar Pradesh (Lakhimpur-Kheri); Madhya Pradesh (Gwalior, Ujjain, Hosangabad); Himachal Pradesh (Kangra); Assam (Guwahati) and Jammu & Kashmir (Srinagar) to meet customers' demand for supplying sized and finished steel near the point of consumption, particularly in states where there are no steel plants and where steel consumption is low compared to the national average.

MOIL

Mineral Benefication Plant at Balaghat Mine

The Company has successfully commissioned in September, 2007 a 5,00,000 TPA state-of-the-art integrated Manganese Benefication Plant with most modern fully computerized bottom air pulsated jigs. The capital cost of the plant is Rs. 21 crore. The Plant will upgrade the low/middle grade fines into high grade. The Plant is of first of its kind in India for Manganese ore benefication.

On going mining projects

- Sinking of vertical shaft at Gumgaon Mine
- Deepening of vertical shaft at Bedongri Mine
- Deepening of production vertical shaft at Balaghat Mine
- Shaft Sinking at Munsar Mine
- Shaft Sinking at Ukwa Mine

Future mining projects

- Sinking of Vertical Shaft at Ukwa Mine at Capital Cost Rs. 20 crore



- Sinking of Vertical Shaft at Munsar Mine at Captial Cost Rs. 25 crore
- Deepening of Holmes Shaft at Balaghat Mine at Capital Cost Rs. 20 crore
- Sinking of a high speed vertical shaft at Balaghat Mine at Capital Cost of Rs. 200 crore

CMD, MOIL, Shri K.J. Singh and CMD, RINL, Shri P.K. Bishnoi exchanging documents after signing an MoU for setting up a plant for production of Ferro Alloys at Bobbili near Vizag, Visakhapatnam.

Diversification and Value addition projects

- MOIL has entered into a joint Venture with Steel Authority of India Limited (SAIL) for setting up a plant at Nandini near Bhilai for production of 70,000 TPA Silico Manganese and 30,000 TPA of Ferro Manganese Plant at capital cost of Rs. 400 crore (Approx.)
- JV with RINL-MOIL has formed a joint venture company - RINMOIL Ferro Alloys Pvt Ltd. The company was incorporated on 29.07.09. The JVC with one 27 MVA furnace and one 9 MVA furnace is envisaged to produce 37500 tonnes per annum of Silico Manganese and 20000 tonnes per annum of Ferro Manganese. The JV will serve to meet VSP's ferro alloy requirement besides opportunity to export. The JV will also help in beneficial use of low grade Manganese ore of VSP's existing mines and also Manganese from OMDC etc.
- 20 MW Wind Turbine Project at Dewas in Madhya Pradesh has been commissioned at a capital cost of Rs. 97.72 crore.

MSTC LTD.

The construction of the departmental stockyard at Haldia was completed during the year 2008-09.

FSNL

Improvement of Quality

Improvement has been made in the quality of scrap recovered through magnetic separator by increasing Fe content of Open Hearth (OH) grade, Blast Furnace (BF) fines grade and sinter fines grade scrap. The increase in Fe content in these two grades was achieved as shown below:

Fe Content	At present	After Modernisation	Recycled to
BF Fines Grade	60 to 65%	80 to 90%	Blast Furnace/SMS
Sinter Fine Grade	40 to 45%	60 to 90%	Sinter Plant



Improvement of Productivity

Improving of productivity by elimination of handling in between different operations such as feeding to the plant, magnetic separation, crushing, screening etc. by automation. Automation will eliminate the Excavator for feeding the plant and loader for loading of the processed scrap and slag.

Reduction in metallic loss

The metallic loss before modernisation, which was about 1.25%, is now restricted to 1%. With the implementation of the above scheme, the steel plants will be benefited due to improvement in quality of scrap, which will fetch additional revenue to the steel plants.

HSCL

The following initiatives have been taken by the company to improve the efficiency of the company:

- Career growth of the employees.
- More responsibilities on individuals for growing as leaders.
- Exposure to computerised accounting and Management Information System (MIS).
- ISO accreditation.
- Training of employees in six standard modules has been taken up for workmen and non-executives at Bokaro and Bhilai. 100 employees of the company have been trained in the required categories during the year 2008-09.

MECON LTD.

MECON has adopted the recommendations made by group of Ministers and Ministry of Steel for creating modalities towards providing ramps and other facilities like Braille symbols and auditory signals in Elevators/Lift for the differently abled persons. For this purpose, budget for the financial years 2009-10 and 2010-11 has been sanctioned for providing ramps with handrails, auditory signals, Braille symbols in MECON, Ranchi office, MECON, Bangalore Office and Ispat Hospital, Ranchi. Work is expected to be completed by financial year 2010-11.

MECON has introduced Comprehensive Health Check-up for the employees above 50 years once in two years.

MECON is proposing to introduce Close User Group mobile phone facility for all the executive employees upto the lowest rung for better communication and bonding/affinity.

CMD, MECON, Shri Drona Rath, signing a General Agreement with Dr Ahmed Khalil Al-Mutawa, the then Secretary General, Gulf Organization of Industrial Consulting (GOIC)



SIIL

The merger process of SIIL with NMDC is in advanced stage and the expansion of plant capacity from 60,000 tonnes per annum to 2,60,000 tonnes per annum will be executed after merger with NMDC for which preparatory works have already been taken up. As a part of expansion, 10.22 acres of land has been purchased from APIIC.

KIOCL LTD.

In pursuance with the directive of the Hon'ble Supreme Court, mining activities at Kudremukh were stopped on 31.12.2005. Consequent to closure of mining activities at Kudremukh, the Company has been exploring various alternatives for mining at other locations within Karnataka and also in other States.

Chikkanayakanahalli Project

Government of Karnataka had granted in-principal approval of mining lease for a period of 30 years over an area of 116.55 ha in Hombalghatta and Hosahalli villages in favour of KIOCL. Indian Bureau of Mines has already approved mine plan.



CHAPTER-XVIII

RECOGNITION AND AWARDS

The PSUs under the Ministry of Steel have consistently bagged several prestigious awards for their excellent performance in various categories. Some of the major awards received by the PSUs during the year are highlighted below:

STEEL AUTHORITY OF INDIA LTD. (SAIL)

Awards received/won by SAIL during the year 2009-10

- SAIL won 7 Prime Minister's Shram Award for the year 2007. DSP won one PM's Shram Vir, one PM's Shram Shree Award. RSP won one PM's Shram Vir, one PM's Shram Shree Award. SSP won one PM's Shram Vir, two PM's Shram Shree Awards.

PM Shram Award	Total No. of Award (No. of Workers)	Plant	Nos. of Award won by Plant (Workers)
Shram Vir	3 (11)	DSP RSP SSP	1 (6) 1 (4) 1 (1)
Shram Shree	4 (10)	DSP RSP SSP	1 (5) 1 (1) 2 (4)
Total	**7 (21)**		**7 (21)**

SAIL Chairman, Shri S.K. Roongta receiving the Gold Trophy of SCOPE Award for Excellence and Outstanding Contribution to Public Sector Management in the 'Institutional' category for the year 2006-07 from Hon'ble Prime Minister, Dr. Manmohan Singh in a function organised at Vigyan Bhawan, New Delhi on 15th October, 2009.



- SAIL won 14 Vishwakarma Rashtriya Puraskar (VRP) for the Performance year-2007 out of total 28 VRP awards declared by the Ministry of Labour, Government of India. It includes 1 Class 'A', 5 Class 'B' and 8 Class 'C' Awards., details of which is as under:

Class	Plant	No. of Group/Individual	No. of Employees
A	BSL	1	4
B	BSP	2	10
	BSL	3	14
C	BSP	2	10
	RSP	3	19
	BSL	1	1
	SSP	2	5
	TOTAL	**14**	**63**

Out of total 121 award winners, 63 are from SAIL family.

- Chairman, SAIL, Shri S.K. Roongta received the SCOPE Award for Excellence and outstanding contribution to the Public Sector Management in the "Individual" category for the year 2007-08 from Hon'ble Prime Minister Dr. Manmohan Singh on 15.10.2009.
- SAIL also received three other major awards for SAIL- The Gold Trophy of SCOPE Award for Excellence and Outstanding Contribution to Public Sector Management in the "Institutional" category for the year 2006-07, and two MoU Excellence Awards in the categories "Mining & Metals" and "Listed Companies" for the year 2007-08.
- SAIL won Dainik Bhaskar "India Pride Award", Excellence in PSU under the award Category "Metals, Minerals & Trade". Director (Fin.) has received the award from Hon'ble Union Minister of Home Affairs, Shri P. Chidambram on 9th October, 2009 at New Delhi.
- SAIL won "National Centre for Promotion of Employment for Disabled People (NCPEDP) - Shell Helen Keller Award 2009". Director (Personnel) has received the award from Hon'ble Human Resource Development Minister Shri Kapil Sibal on 2nd December, 2009 at IIC, New Delhi.
- Shri G. Ojha, the then Director (Personnel) was conferred with "HR Leadership Award" in regional round of 4th Employer Branding Awards-2009" on 10th December, 2009 at Indore (MP).
- Shri Soiles Bhattacharya, Director (Finance) was conferred with the "GSBA- Top Rankers Excellence Award-2009" under the "Best Finance Professional" from Shri Saugata Roy, Hon'ble Union Minister of State for Urban Development on 18th December, 2009 at New Delhi.
- SAIL have won the "SCOPE Meritorious Awards" for Research & Development in specialized field for the year 2007-08.
- SAIL quality circle teams has won awards (Gold-8, Silver-1, Bronze- 6) at the International QC meet held at Philippines in Oct.' 09.
- SAIL's Annual Report was adjudged as the recipient of Best Presented Account Award (IInd position) for the year 2008 under Public Sector entities by South Asian Federation of Accountant (SAFA).

Bhilai Steel Plant (BSP)

- BSP won "Golden Peacock Award" for the year 2008 under the award category for Eco-Innovation.
- BSP won "Performance Excellence Award" for Enterprise Excellence on Financial and Operational Strength, organized by Indian Institute of Industrial Engineering during 2007-08.
- BSP won "Inssan Award" for the year 2007-08 from Indian National Suggestion Scheme Association, in recognition of excellence in implementation of Suggestion Scheme.
- BSP won the Prime Ministers Trophy for Best Integrated Steel Plant in the country for the year 2006-07 and 2007-08 (November 2009).
- BSP won the "National Energy Conservation Award" for the year 2009 from the Ministry of Power in recognition of Efforts in energy conservation in integrated steel plant on 14th December 2009.
- BSP has "Golden Peacock National Quality Award" for the year 2010 from Institute of Directors, New Delhi in recognition of Quality continuous thrust (January 2010).



- Managing Director, BSP has won "QCFI Award 2009" for best CEO of the year for 2009 from QCFI in recognition of Promoting Quality Concepts in the Organization (18th December 2009).
- 3 quality circle teams of BSP won the three awards (Gold-2, Bronze-1) at the International Convention on Quality Control Circle.

Durgapur Steel Plant (DSP)

- DSP won "Golden Peacock OHS Award" for the year 2008-09 from the Institute of Directors, in recognition of occupational Health and Safety on 14th June 2009.
- DSP received "ISTD Award" for the year 2008-09 from Indian Society for Training and Development, in recognition of Innovative HR Practices and Training Practices.
- DSP bagged the prestigious "National Energy Conservation (NEC) Award-2009" (first prize) in the Integrated Steel Plant Sector from Ministry of Power, in recognition of planned and strategic initiatives towards energy conservation.

Managing Director, Durgapur Steel Plant of SAIL, Shri P.K. Bajaj receiving the "National Energy Conservation (NEC) Award-2009" from Hon'ble Union Minister of Power, Shri Sushil Kumar Shinde.

- DSP won "Golden Peacock Innovation Management Award" from Institute of Directors, New Delhi, which was presented by Hon'ble Minister of State for Corporate Affairs, Shri Salman Khurshid at Bangalore on January 16, 2010.

Bokaro Steel Plant (BSL)

- BSL won "CII (ER) Productivity Award" for the year 2008-09 from CII (Eastern Region), Kolkata in recognition of Enhancing productivity.
- BSL received "Performance Excellence Award" for the year 2007-08 from Indian Institute of Industrial Engineering, Mumbai in recognition of Excellent Performance.



- BSL received "Greentech Environment Excellence Award 2009"-Gold category from Greentech Foundation in recognition of Metal & Mining.
- BSL won "Inssan Award" for the year 2008 from Indian National Suggestion Scheme Association, in recognition of Suggestion based on Posters and Slogans.

Research and Development Centre for Iron & Steel (RDCIS)

- Dr. SN Prasad, AGM, RDCIS has received "Indraneel Award" from Ferros Metallurgy in recognition of Mining Geological and Metallurgical Institute of India, Kolkata on 15.09.2009.
- Sh. TS Reddy, RDCIS received "National Metallurgist's Day Award-NMD 2009" for the year 2009 from Ministry of Steel in recognition of his contribution of Metallurgy discipline.
- Sh. INP Gupta and Ms.Archana Sharan, RDCIS received "Mecon Award - NMD-2009" for the year 2009 from Indian Institute of Metal in recognition of outstanding contributions in the development of Process Engineering/ Equipment and System Design.
- Dr. D Mukerjee, Dr. Ramen Dutta, Sh. P Gupta and Ms. Seema Gupta , RDCIS received "Dr. M Visveswaraya Award" for the year 2009 from The institute of Engineers (India).

RASHTRIYA ISPAT NIGAM LTD. (RINL)

- RINL was the first recipient of the prestigious Steel Minister's Trophy for best integrated steel plant for 2006-07.
- RINL won the "Energy efficient unit" conferred by CII at the 10th National Award for Excellence in Energy Management.
- Two Quality Circle (QC) teams of RINL participated at ICQCC-2009 held at Cebu, Philippines during October 2009 and won One Gold and One Bronze medal.
- Twenty QC Teams participated in National Convention on Quality Circles conducted by Quality Circle Forum of India (QCFI) at Bengaluru during December 2009. Seven QC teams won 'Par Excellent' and Thirteen teams won 'Excellent' awards for the presentations.
- Two QC teams participated at CII State level QC competitions held at Hyderabad during Nov'09 and the one team won 3rd prize.
- RINL has won "INSSAN Award for excellence in Suggestion Scheme" (First prize) under Steel Units category in the National level from Indian National Suggestion Schemes' Association (INSSAN), Mumbai.
- 5S Teams from departments of RINL bagged 'Par Excellent' awards during National Convention on Quality Circles - 2009 held at Bengaluru.
- RINL was declared National Champions of "National Management Quiz - 2009" conducted by All India Management Association

MANGANESE ORE (INDIA) LTD. (MOIL)

MOIL has been continuously getting national/regional recognition for its good work in almost all the fields of activities. The following are some of the recognitions has received by the company at national level:

- National Safety Awards given away by Hon'ble Vice President of India:

Mines	Category	Year 2007
Dongri Buzurg Mine	Longest Accident Free Period	Winner
Beldongri Mine	Lowest Injury Frequency Rate	Runner-up



- MoU Excellence Award for the year 2007 presented by the Hon'ble Prime Minister of India
- National Energy Conservation Award- 2nd Prize in Mining Sector for Kandri Mine for the year 2009
- National Quality Circle Award 2009-In NCQC-2009,team Pancharatna QC from Dongri Buzurg Mine bagged "Par Excellent" Award and Parakh QC from Tirodi Mine bagged "Excellent" Award.

The Company also recognizes the talents within the organisation and encourages to actively participate and give suggestions for the improvement in the performance of the company.

NMDC LTD.

- NMDC received the IIIE Performance Excellence Award 2008 for the year 2007-08 during the 12th CEOs Conference at Manali on 25th May'2009
- NMDC received "India Pride Award for CSR Excellence" for the year 2008-09 from Hon'ble Union Minister for Home Affairs, Shri P Chidambaram on 09th Oct'2009
- NMDC received CAPEXIL Top Export Award for 2008-09 from Hon'ble Minister of State for Commerce and Industry, Shri Jyothiraditya M Scindia on 27th Nov,09.

Hon'ble Union Minister of Home Affairs, Shri P. Chidambaram presenting India Pride Award for CSR Excellence for the year 2008-09 to CMD, NMDC, Shri Rana Som on 9th October, 2009.



CHAPTER-XIX

PROMOTION OF STEEL USAGE

STEPS TAKEN TO INCREASE DOMESTIC STEEL CONSUMPTION

One of the major objectives of the National Steel Policy is to augment the demand and consumption of steel in the country by conscious promotion of steel usage. In furtherance to the National Steel Promotion Campaign launched in March 2007 to create mass awareness regarding various innovative and common uses of steel, the Institute for Steel Development and Growth (INSDAG) has initiated several innovative and cost effective solutions.

Steel Intensive Housing: INSDAG had given a detailed technical presentation before Ministry of Housing and Urban Poverty Alleviation, GOI highlighting the advantages of using steel in Affordable Housing Projects in urban areas. Accordingly, INSDAG developed some model G+3 building plans, completed the steel intensive design and submitted with the concerned Ministry along with cost estimation. Development of variety of steel intensive solutions for Rural Housing and presentation to the appropriate authorities are also being carried out from INSDAG's end. One model steel village comprising of houses, toilets, meeting hall and school building has already been constructed by RINL at Visakhapatnam. Once finalized, these steps will increase domestic steel consumption in many folds.

Earthquake Resistant Structurals and Rebars: INSDAG is trying to popularize safe building practices by introducing two separate Indian standards on Earthquake Resistant Structurals and Rebars, manufactured by SAIL, RINL and TATA Steel. Earthquake resistant structural standard has been finalized and will be available shortly whereas Earthquake resistant Rebar standard is now under the purview of Civil Engineering Committee of BIS. As most of India falls under severe seismic zone, this will be extremely useful to augment consumption of steel in the country.

Bridges and Culverts: Another area in rural and urban sector is bridges and culverts. As per INSDAG's design, National Rural Road Development Authority (NRRDA) had brought out design manual for rural bridges and culverts which will be constructed across the country. INSDAG is also designing several other types of rural and urban bridges as well as steel-concrete composite bridges as per IRC-22 with Limit State Method of design.

Hon'ble Union Minister for Steel, Shri Virbhadra Singh at the SAIL Pavalion, IITF 2009.



Steel Bullock Carts: Till date, 800 steel bullock carts as developed by INSDAG and sponsored by SAIL, RINL and other private sector steel units, have been fabricated for distribution. The utility of steel bullock carts vis-à-vis primitive bullock carts were propagated widely. These will be distributed through the District Administration with preference to weaker sections.

Dissemination of Knowledge: In order to encourage usage of steel in bridges, flyovers and high rise buildings, INSDAG is conducting regular interaction program with Architects, Engineers and Builders and also giving guidance to professionals, consultants and teachers, to promote steel intensive structural design. INSDAG also took steps for modification of BIS and IRC Codes and the technical education curricula in the country. INSDAG is preparing several guidebooks for proper utilization of revised steel related design Codes and is training a large number of Civil Engineering teachers and working professionals.

Study for assesment of steel demand in rural India

India's steel production capacity is going to increase mainfold in the coming years.The current low per capita consumption of steel of 47 Kg, compared to the world average of 190 Kg, strengthens the argument that the domestic steel industry has a huge growth poteintial.The Parliamentary Standing Committee (PSC) on Coal and Steel on Demand for Grants (2007-08) of the Ministry of Steel in its 25th Report had noted that 'to achieve this objective, it is necessary to create required infrastructure for steel industry as well as increase per capita consumption of steel'. The Committee also observed that 'the biggest challenge in achieving the desired level of consumption is removing the wide disparity between urban and rural areas. The Committee, therefore, desired the Ministry to conduct a survey to assess the demand of steel in rural areas'.

In pursuance of the recommendation of the Standing Committee the Ministry of Steel is getting a survey carried out through Joint Plant Committee to assess the demand for steel in rural areas. The objective of the survey is to assess trends in consumption pattern of different items of steel in the Indian rural market. The survey would also capture the steel demand arising from investment going into infrastructure development through projects like Bharat Nirman, etc. focused exclusively on development of rural India.

A Technical Committee, headed by a Joint Secretary of Ministry of Steel and comprising of members from industry and industry associations has been constituted to monitor the survey. IMRB International, a pioneer in market research, has been selected by the Technical Committee to conduct the field and analytical work of the survey. The survey would be based on stratified sampling of the rural population, taking into consideration the following:

- All the 35 states and union territories separately
- 300 districts (based on percentage of rural population)
- 1500 villages (based on percentage of rural population)
- At least 15-20 households and all institutions like gram panchayats in each village
- A total of 4500 manufacturers and 8000 retailers (based on output/turnover) at the rural level.

Data, for analysis purpose, for the survey would be collected for the three years viz., 2006-07, 2007-08 and 2008-09 and assessment of rural steel demand would be for the periods 2011-12, 2016-17 and 2019-20. A pilot survey has already been conducted covering one district from each of the four zones (north, south, east and west) in the country. The districts identified were Nadia in West Bengal (east), Rae Bareilly in Uttar Pradesh (north), Ahmednagar in Maharashtra (west) and Vellore in Tamil Nadu (south).

Steel distribution network

It had been felt that prices of steel should be kept at a reasonable level to safeguard the interests of the common man in accordance with the UPA's Common Minimum Programme. Therefore, the main steel producers in a meeting held in the Ministry on September 8, 2006 resolved to make available items of common steel consumption in the rural areas through their dealer network at the same price as applicable in metros and a decision was taken to have at least one dealer in each district in order to make available steel items to the common man. Consequently, a significant part of the cost of transportation as well as distributors/ wholesalers' margin would be borne by the producers.

This is providing relief of about Rs. 600-1,000 per tonne to the individual customer in the rural areas. In order to ensure the availability of commonly used items of steel in the rural areas across the country, SAIL and RINL are expanding their distribution networks at a fast pace with the objective of having dealers in all the districts of the country.

Preference for SC, ST and OBC are given while allotting District level dealerships and relaxed entry conditions have been formulated for SC/ ST and OBC categories for their wider participation.



Steps taken by SAIL to promote usage of steel

- Distribution network of SAIL was expanded by establishing Warehouses at seven new locations during April 2008-March 2009. During April-September 2009 marketing network was further expanded by appointing two Customer Contact Officers and opening two new Warehouses. With this, SAIL's marketing network has expanded to 37 Branch Sales Offices, 26 Customer Contact offices and 67 Warehouses as on 1st January, 2010. SAIL has the widest network of branches and warehouses in the country among steel producers, which helps it in meeting requirements of wide range of customers at their doorstep in time.
- SAIL has also expanded its dealer network extensively. As on 1st January, 2010, SAIL had 1963 dealers in 599 districts. Items of mass consumption like Rebars and Galvanised Sheets, required by common man are being sold through district dealers.
- Incentive schemes have been introduced by the company to encourage dealers to perform consistently and promote SAIL steel. SAIL held its first dealer award ceremony "Gaurav Samman" during April 2008 at Bangalore for the year 2007-08 and second ceremony in May 2009 at Goa to reward well performing dealers based on their performance of 2008-09.
- SAIL is regularly holding Dealer meets, architects meets and masons meets along with its dealers for promotion of SAIL steel. During April-December 2009, 55 dealer meets, 17 architects meets and 8 mason meets have been held.
- SAIL released two directories during 22nd National Steel Consumer Council meet held on October 4, 2008 at Delhi consisting of details of SAIL Dealer Network and SAIL Warehouse Network and distributed them among council members to increase awareness about SAIL outlets.
- Technical presentations are made from time to time to project customers for launching new products like corrosion resistant / earth quake resistant TMT Bars for construction and rock bolt bars for tunneling.
- SAIL has undertaken various promotional activities to promote sales through dealers. Some of them are given below:
  - Wall Paintings done at various locations including interior areas.
  - Broadcast of radio jingles on FM radio.
  - Product brochures/technical literature given to the dealers for distributing among customers.
  - Promotional items (calendars/pens/key chains/T Shirts/Bags etc.) were distributed by dealers among customers.
  - Advertisement of dealers in print media/dealer details also updated on the SAIL website.
  - SAIL Maximum Retail Price (MRRP) is prominently displayed at all dealer shops and also regularly updated on SAIL website.
  - Incentive schemes have been introduced by the company to encourage dealers to perform consistently and promote SAIL steel.
- Participation in fairs and exhibitions highlighting various usages of steel.
- SAIL advertisement was released on train tickets and on few major trains like Shatabdi for building brand awareness.

RASHTRIYA ISPAT NIGAM LTD. (RINL)

Continuous efforts are made at RINL for developing new products to meet specific applications for promoting steel usage. The requirements of customers of new products/grades/sizes of steel products are studied and in case it is found feasible, these are developed and supplied to the customers. During the period Apr-Dec '09, 19 new products have been developed to meet the specific requirements of the customer. These new products have been developed for applications like Transmission Line Tower segment, Anchor Link Chains in Ship Building Industry, Fasteners in Automobile Industry, Helical Springs, Axle shafts, U-Bolts for HCVs, Auto components etc.

In order to promote of consumption of steel in the rural areas, RINL has started District Level Dealership Scheme (DLDS). The main objectives of DLDs are to establish a wide distribution network so as to ensure availability of VSP's steel products and increasing customer base. Till now, RINL has appointed District Level Dealers in almost all the districts in the Southern States i.e., Andhra Pradesh, Tamil Nadu, Karnataka and Kerala and adjoining States i.e., Orissa, Chhattisgarh and Maharashtra. As on January 2010 RINL had 80 district level Dealers in position.


Construction of a Model Steel Village by RINL.

The quantities of steel products lifted by DLDs in the last three years and the current year are as under.

(Unit: Tonnes)

2006-07	2007-08	2008-09	2009-10 (Apr-Dec)
10434	34922	42953	8005

RINL supplies steel products to the SSICs / NSIC as per the annual allocation made by the Ministry of Steel, GOI. The Corporations are extended JPC Rebate of Rs.500 per tonne towards handling charges for the material supplied to them. During the period Apr-Dec'09, RINL has supplied 60,032 tonnes of steel products to SSICs/NSIC.



CHAPTER-XX

CORPORATE SOCIAL RESPONSIBILITY

Corporate Social Responsibility (CSR) has been identified as an important parameter in the MoUs drawn up by the major PSUs with the Ministry of Steel since 2007-08. CSR activities focusing on environmental care, education, health care, cultural efflorescence and peripheral development, family welfare, social initiatives, including sports activities and other measures are underway at the PSUs.

- All profitable steel PSUs have earmarked at least 2% of their distributable surplus for CSR activities since 2007-08. Mining PSU-NMDC earmarked 5% of its distributable surplus for CSR activities.
- Total budget of Rs. 290.11 crore had been allocated for carrying out CSR activities by the Steel Ministry PSUs during 2008-09. The expenditure on CSR during the period 2008-09 stood at around Rs. 229 crore. The details are at **Annexure-XV**.
- More than 400 Medical/Health Camps were organised by SAIL and other PSUs under CSR activities, benefiting more than 5 lakh people.
- SAIL, NMDC, RINL, MOIL, KIOCL, MECON, MSTC, FSNL and OMDC also contributed more than Rs. 30 crore towards Bihar flood relief activities in September-October 2008.

Hon'ble Union Minister for Steel, Shri Virbhadra Singh and Hon'ble Union Minister of State for Steel, Shri A. Sai Prathap with International Hockey Federation Chief Mr. Leandro Negre (third from right) at agreement signing ceremony for Steel Authority of India Ltd. (SAIL) becoming the Presenting Partner of the Hero Honda Hockey (FIH) World Cup 2010 to be held in Feb-March 2010 in New Delhi. Also seen in the picture are Steel Secretary Shri Atul Chaturvedi (second from right), Special Secretary and Financial Advisor, Shri B.S. Meena (extreme right), SAIL Chairman Shri S.K. Roongta (extreme left) and Shri G. Ojha, the then Director (Personnel), SAIL (third from left).

MODEL STEEL VILLAGES

All the main producers have been urged by the Ministry to adopt villages around their plants and as part of their CSR, help develop these villages as model steel villages, with the objective of attaining a holistic development model which would include the promotion and sustenance of medical and health services, education, sports, livelihood promotion through agriculture, self help groups, roads and connectivity, sanitation and community centres.

Use of steel is emphasised in items such as storage bins, bullock carts, buildings such as school buildings, panchayat halls, health centre buildings, water tanks, waiting sheds etc.



149 villages are being developed as 'Model Villages' under CSR activities by SAIL, NMDC, Rashtriya Ispat Nigam Limited (RINL) and Manganese Ore (India) Limited (MOIL). SAIL has adopted 79 villages across eight states - Chhattisgarh (21 villages), West Bengal (20 villages), Orissa (19 villages), Bihar (3 villages), Jharkhand (13 villages), Karnataka (1 village), Madhya Pradesh (1 village) and Tamil Nadu (1 village). Out of these 79 villages, 46 villages were completed during 2009-10 (upto December '09). In respect of NMDC, the coverage comprises of 58 villages surrounding Bailadila projects in Chattisgarh and eight villages in the Donimalai Sector of Karnataka. Pre-Project survey of 58 villages surrounding Bailadila Projects has been completed. NMDC initiated Integrated Development of two villages initially due to sensitive nature of the Bailadila area and later expanded to eight villages during the year, at a cost of Rs. 2.5 crore. The project will subsequently cover all 58 villages at an approximate cost of Rs. 20 crore per year. MOIL has adopted three villages in Maharashtra and two in Madhya Pradesh as Model Villages. RINL has adopted seven villages in its periphery as Model Villages.

The PSUs had been advised to strengthen their existing mechanism for implementation and review of the CSR activities and to empower suitable officials in their respective organisations with appropriate administrative and financial delegation of powers so as to streamline and ensure the implementation of CSR activities as per their respective earmarked budgets. Beginning with the peripheral areas around their respective plants, the PSUs will gradually target the CSR activities to cover the areas populated by the SCs, STs and weaker sections of the society. In addition, the PSUs will also provide assistance to National, State and reputed local organisations involved in the field of arts, culture, health care, tourism, sports and other allied areas.

JOINT PLANT COMMITTEE (JPC)

First CSR Activity of Joint Plant Committee:

The Joint Plant Committee observed its 46th Foundation Day on 1st March, 2009. On this day, JPC distributed tri-cycles to 50 physically challenged individuals. The recipients were identified by the Bharat Shevashram Sangha. The

A Medical Camp being organised by SAIL for the poor and needy people of peripheral areas.



"differently abled" children of Manovikas Kendra (Rehabilitation and Research Institute for the handicapped) performed on the occasion.

CORPORATE SOCIAL RESPONSIBILITY AT 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. The Credo of SAIL specifically highlights the commitment towards society at large which states inter-alia "Making a meaningful difference in people's life".

Since its inception in 1973, much before 'Corporate Social Responsibility' became a buzzword, SAIL put in place systems for socio-economic development of the neighbourhoods and communities amidst which its plants and units operate. The objective was to plough prosperity back into the environment from which its strengths emanate, to minimise inequalities by providing quality education, healthcare, infrastructure and employment avenues to all, to ensure that man and nature live in harmony, to preserve the originality and beauty of Indian culture while simultaneously promoting scientific temperament and modern technology. The company's business philosophy encompasses a triple bottom line approach covering the economic, environmental and social dimensions. SAIL's commitment is reflected by way of nurturing human capital while building the society and conserving natural resources.

The SAIL CSR Policy recognizes that its business activities have direct and indirect impact on the society. The Company strives to integrate its business values and operations in an ethical and transparent manner to demonstrate its commitment to sustainable development and to meet the interests of its stakeholders. The Company is committed to continuously improving its social responsibilities, environment and economic practices to make positive impact on the society.

Besides the countless intangibles that SAIL has invested in its plants, units and peripheries, concerted and organised efforts have also been made in specific areas to encourage socio-economic development. SAIL has taken effective measures in the field of environment conservation, health and medical care, education, women's upliftment, providing potable drinking water and ancillary development. By systematically addressing a gamut of issues such as health and medical welfare, education, access to water, sanitation, power and roads, women's empowerment, generation of employment, electricity, sports, culture, etc., at each of its plants and units, SAIL has contributed immensely to the economic development of its peripheral adjoining areas.

The developmental efforts of SAIL have seen the obscure villages of yesterday, where SAIL plants are located, turn into large industrial centres today. SAIL has established 61 Primary Health Centres, 8 Reproductive and Child Health Centres, 18 Hospitals and 6 Super-Specialty Hospitals to provide specialized healthcare to almost 26.7 million people. It has opened over 138 schools in the steel townships to provide modern education to about 74,000 children. Besides adopting and providing free education and facilities to tribal children, SAIL has provided assistance to over 260 schools, with more than 55,000 students of villages surrounding its units. In this endeavour, SAIL has achieved a Girl:Boy ratio of 1:1 for all levels of education and a survival rate, i.e. rate of retaining enrolled students of 95% in SAIL Primary Schools and 90% in SAIL Secondary schools.

The efforts of SAIL in the development of society have been well appreciated and have been ratified during the year. SAIL was adjudged a finalist of "Stivie Award - 2009", Bhilai Steel Plant (BSP) -SAIL has been awarded "Golden Peacock Award- 2008" for CSR and Salem Steel Plant (SSP)-SAIL has been awarded "CSR Award" by Tamil Nadu Government for the year 2007-08 and 2008-09 for its valuable contribution towards socio-economic upliftment of neglected section of society through CSR initiatives. SAIL has also bagged "National Centre for Promotion of Employment for Disabled People (NCPEDP)-Shell Helen Keller Award 2009".

SAIL has adopted 79 villages across eight (8) States (Chhattisgarh, West Bengal, Orissa, Bihar, Jharkhand, Karnataka, Tamil Nadu and Madhya Pradesh) and these are being developed as Model Steel Villages in a phased manner. The developmental activities being undertaken in these villages include :

- medical and health services,
- education,
- roads and connectivity,
- access to water facilities



- sanitation
- community centres,
- livelihood generation,
- sports facilities, etc.

The total number of MSVs completed by SAIL by the end of September, 2009, has reached 46. Thus, the result of the CSR efforts in this direction will touch almost all the areas of the village- life and provide them with much improved living standards.

Ever since inception, the company has endeavoured to provide a healthy life by providing medical care to the people living in the peripheral areas of its plants/units. As the plants/units are located mainly in backward areas, the company took steps to create better and healthy living conditions for both its employees as well as people living in the periphery. The company organizes a number of health camps at various villages on fixed days. The purpose of the Health-Camps is to create health awareness and sensitize people on health related issues by immunization, blood-donation, water purification tablets, distributing handbills, etc, and providing them medicines in the medical/health camps. Provision of specialists in the area of Gynecology, Cardiology, Pediatrics, Ultrasound, Orthopedics are made from time to time.

SAIL has been organising health camps regularly where large number of beneficiaries have access to :

- free health check-up
- path lab treatment
- medicines
- immunisation
- surgical cases referred to plant hospitals (free stay, to and fro transport and food with 1 attendant each)
- post operative check up etc. (if required)

Separate schools have been set up for under-privileged children at five Integrated Steel Plant locations benefiting more than 1400 poor children providing free education, stationery items, support of books, uniforms and nutritious mid-day meals. The company supports around 140 schools in the peripheral areas of SAIL's plants/units in the country. Number of benefits have been provided to the SC/ST children, such as scholarships to deserving SC/ST undergraduate engineering students, adoption of 118 tribal children at Bhilai and another 12 children nearly extinct Birhore Tribe at Bokaro to provide free education, boarding and lodging facilities, etc. Besides adopting and providing free education and facilities to tribal children, ITI has been set up at Gua Mines.

Each SAIL plant has ensured that villages within the peripheral areas (approximately 18 kms of its township) have access to potable water. This has been done by installing 4714 water sources, thereby providing drinking water access to more than 37 lakh people.

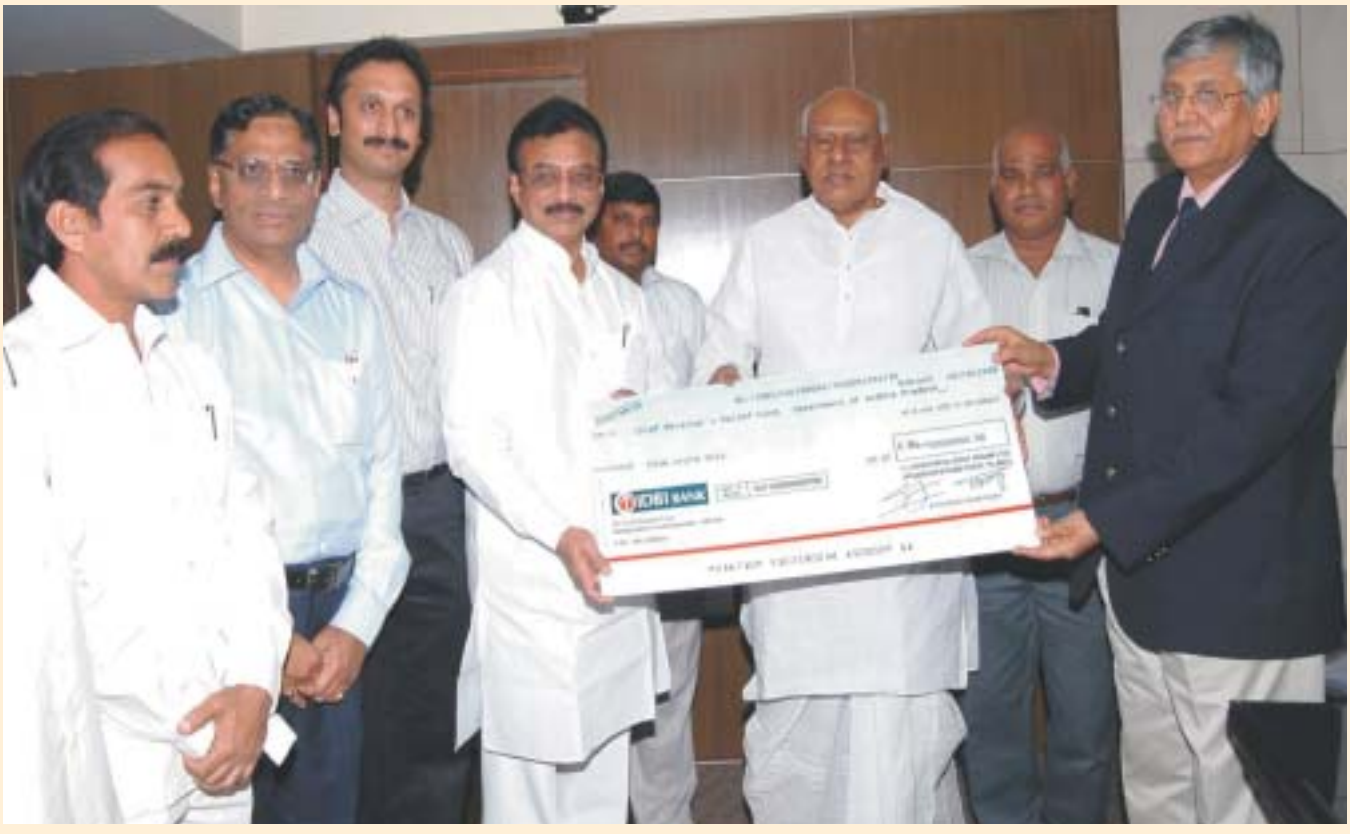
SAIL has been involved in the construction and repair of pucca roads. Till March, 2009, more than 56 lakh people across 435 villages were provided access to this modern infrastructure facility (road).

Promotion of sports has been an integral part of the corporate philosophy of SAIL right from its inception. The company has set up 6 sports academies, viz. an Athletics Academy for boys at Bhilai, a Hockey Academy at Rourkela, a Football academy at Bokaro, an Athletics Academy for girls at Durgapur, an Archery Academy at Kiriburu and a Football Academy at Burnpur.

The Sports academies scan the peripheral areas of the steel plants as well as different regions of the country and select suitable young talents for enrolment. The trainee are put through strict training by well-qualified coaches in each of the fields and groomed to higher levels of competence. Continuous emphasis on sports activities has helped develop players who have gone on to compete at state and national level tournaments. As an organization, SAIL also undertakes sponsorship of various major sporting events eg. All India Tennis Association, New Delhi; 7th World Korfball Championship, Jawaharlal Nehru Hockey Tournament, New Delhi etc.

The company is doing its bit in preserving ancient form of art by promoting various dying art-forms. This is done by promotion of the art form, giving the performers a platform to showcase their talent, etc. Alongwith the ASI, SAIL has taken up the task of preserving the Lodhi Tomb. Improvement/developmental works undertaken at Swargadwar and nearby Complex at Vedvyas, near Rourkela, Orissa. Bokaro Steel Plant (BSL) is undertaking development of infrastructural facilities and amenities etc. at archeological sites of Lauria Nandangarh and Chankigarh in West Champaran district of Bihar.





CMD, RINL, Shri P.K. Bishnoi handing over a donation cheque for Chief Minister's Flood Relief Fund to Hon'ble Chief Minister of Andhra Pradesh, Dr. K. Rosaiah in the presence of Hon'ble Minister of State for Steel, Shri A. Sai Prathap.

Creating Sustainable Incomes

A sense of hope for future is most important for leading a good life. SAIL is constantly working to identify various areas where training and help to the communities can be imparted so as to make them self sustaining units that can generate incomes for themselves. People living in the peripheral area of SAIL's plants/ units are taught skills like animal husbandry, chullah making, goatery, piggery, fishery etc, that will help them to merit more than two square meals a day. These programmes promote rural savings and credit, natural resource management, village infrastructure development, increased agricultural productivity through better management of resources and intensive cropping, and skill development and enhancement of the community.

RASHTRIYA ISPAT NIGAM LTD. (RINL)

The company has taken up various initiatives during 2009-10 towards Corporate Social Responsibility and the focus is on sustained development and inclusive growth of the surrounding community. Some of the major focus areas include Peripheral Development, Education, Medical and Health, People care, Sports and Cultural Efflorescence and Help extended during Natural calamities. An expenditure of Rs. 8.77 crore was incurred on CSR activities for the period April-December 2009 against budget of Rs. 12.75 crore for the year 2009-10.

Education

In it's attempt to ensure that all children have the opportunity to meet basic learning needs, VSP has taken several initiatives like construction of School buildings (11 Nos handed over to State authorities and 6 Nos under construction), construction of Hostel Block (covering 3 Districts) for 21st Century Gurukulam under Andhra University at Visakhapatnam, lending of monetary support to M/s Vijaya Foundation, Kadapa, towards completion of the balance construction of School building. etc. Free seats were granted for 225 poor students in Visakha Vimala Vidyalaya school in VSP's township.

Medical and Health

RINL has taken up a number of activities in this field. Some of the initiatives taken up in this direction are conducting of various medical camps, De-addiction programmes, Child immunization, AIDS awareness campaigns. RINL extended



its support to "Sankar Foundation" (renowned Eye Hospital) for conducting free cataract operations for the benefit of the poor. Nearly 3500 patients were tested and surgeries were carried out for 1100 persons during Apr - Dec '09. RINL has given financial support to King George Hospital, Visakhapatnam towards procurement of special equipment for Dermatology Department.

People care

People care is an integral part of CSR activities in the company. RINL made arrangements for supplying drinking water to 4 Rehabilitation (RH) colonies ensuring supply of 36,000 litres/ day of water through tankers for each RH colony for a period of 52 days. The beneficiaries are 18,000 people (approx.) per day.

Other activities organized in this direction include distribution of Mosquito nets to Ashram Schools in nearby villages of Visakhapatnam district to prevent diseases due to mosquito bite, distribution of sewing machines / Wet grinders to poor people in association with Lions club, Ukkunagaram, Visakhapatnam etc.

RINL's initiatives towards people care are widespread and have benefited all strata of society. Financial support was extended to Police Commissionerate, Visakhapatnam for procurement of 9 nos. of Alco Meters.

Peripheral Development

RINL has given major thrust to Peripheral Development and has implemented several innovative schemes like the Jaladhara scheme to supply drinking water to tribal belts of Visakhapatnam district and the scheme was implemented in 6 Tribal villages benefiting about 1300 villagers. RINL has completed the construction of Kitchen room and water tank at Karuna school, shed at Islampeta High school and handed over to the people. Several welfare measures are also taken to develop the areas populated by SCs /STs / Weaker Sections of the Society like construction of function hall at Durgavanipalem in Pedagantyada Rehabilitation (RH) colony, Visakhapatnam. Hostels were constructed for the benefit of students. RINL has donated items like Generator, Filter cum Cooler, Fans, Laser printer and benches to Govt. Health Centre at Aganampudi RH colony, Visakhapatnam

As a Corporate citizen

RINL has also handed over a fully equipped ambulance to help the Visakhapatnam District Police to render emergency service in times of need. VSP sponsored a semi automatic offset printing press at the Central Jail of Visakhapatnam, to enable the inmates to simultaneously earn and also learn the trade, benefiting about 100 Prisoners. An amount of Rs.5 crore was donated to CM's Relief Fund towards flood relief measures.

Sports and Cultural Efflorescence

Activities in this field include support to Sportspersons, sponsorship of sporting events, Cultural Events, Academies, music and culture etc. A Ballet 'Telugu Prasasthi' by KRKM Memorial Academy of Fine Arts, Hyderabad was organized on "Vidyalaya Diwas" (14.11.09) celebrations of AP State Official Language Commission.

NMDC LTD.

List of Major CSR Initiatives taken up during 2009-10 (Up to December 2009):

Integrated Development of Villages: Pre-project survey taken up in 30 villages and completed in 21 Villages. Integrated development works in 8 villages initiated during 2008-09 in progress. Integrated development of 5 Villages in Bailadila at a cost of Rs.820.32 lakh to be initiated shortly.

Hospital on Wheels: 'Hospital on Wheels' facility launched on 01.01.2009 to provide Medicare at the door step of tribal villagers of 29 villages in Bailadila is running successfully. Medical Vans equipped with ultra modern medical equipment are visiting the villages every day. Two qualified doctors for each van recruited exclusively for 'Hospital on Wheels'. Till Dec'09 - 23986 patients have been treated.

Scholarship Scheme: The Scholarship Scheme to motivate SC/ST students to pursue studies beyond 8th Class upto degree in Engg/Medicine is in operation in five Districts of Bastar and 8 villages surrounding Donimalai project. In the current financial year, an amount of Rs.209.75 lakh for 6404 students has been disbursed.

Education: Establishment of Residential Schools at Geedam, Kuwakonda , Dantewara, Nagarnar in Chhattisgarh and Sitapur in UP, Polytechnic at Dantewara, Nagarnar and ITI at Nagarnar are in various stages of progress. Literacy improvement programme in 84 Schools of Dantewada at a cost of Rs. 368.02 lakh is being initiated.



Mid-day meal Programme: Mid-day meal programme covering 10,000 children in and around Donimalai project is running successfully.

Skill Development: Skill Development workshops on Jute / Bamboo / Bell Metal / Terracotta / Sisal crafts to develop the inherent skills of the Bastar Villagers have been conducted. The results are very encouraging and are yielding revenue for the trained un-employed youth.

Schemes under partnership with State Governments: Solar Electrification in Dantewara and Kuwakonda blocks and Solar Lighting in the houses and on the road in Bijapur, Dantewara, Jagdalpur and Narayanpur Districts of Chhattisgarh at a cost of Rs.1611.29 lakh is in progress. Second installment of Rs. 506 lakh released in 2009-10. Total amount released till date Rs.1180 lakh. The Gurukul Astha has been established for SC/ST/OBC Orphans at Geedam at a cost of Rs.1291.19 lakh.

Additional contribution of Rs.375 lakh for construction of houses for the slum-dwellers in Bellary District, Karnataka during 2009-10. Total contribution of Rs.1875 lakh till date. Contribution of Rs.558.34 lakh has been made for Creation of various infrastructures in Chhattisgarh.

Infrastructure Development: Expenditure on various infrastructure development works viz., Roads, Culverts, Community Halls etc. initiated has been Rs. 844.19 lakh.

CSR works in other than peripheral areas

- Construction of Flood Relief Shelter at Kusheshwar Asthan, Bihar is in progress.
- Establishment of a Residential School in Sitapur Dist, UP is in progress.
- 'Hospital on Wheels' facility in Sitapur and Lakhimpur Kheri Districts of U.P. in operation.
- Contributed Rs. 1000 Lakh to Flood Relief in Andhra Pradesh and Karnataka.
- Relief to victims of Fire accident at Rohru, H.P.
- Relief to flood victims in Rohru, H.P.
- Contribution of Rs.50 lakh for establishment of Multi Disciplinary Hospital at Hyderabad.

Promotion of Sports

- Promotion of Archery in Chhattisgarh.
- Sponsorship of World Snooker Championship 2009.
- Promotion of Handball in Chhattisgarh.
- Sponsorship of National Rapid and Blitz Championships 2009.
- Support to District football Association, Panna.
- Provided Sports material to Nagarnar, Amaguda and Manganpur Gram Panchayats.

Miscellaneous CSR activities

- Support to Ramakrishna Mission Sanatorium, Ranchi for purchase of Vehicles.
- Sponsorship of Rajyotsava Chhattisgarh 2009.
- Contribution to Bastar Dussehra Lokotsav 2009.
- Assistance to M/s SPIC MACAY.
- Assistance to International Levi festival at Shimla.
- Financial Support ranging in thousands of rupees to various other organizations.

Annual Expenditure incurred on CSR activities:

During the year 2009-10 (Upto January 2010), NMDC has already committed Rs.153.30 crore for various developmental works as per the formulated CSR policy. The actual expenditure on CSR activities during the year (Up to Dec'09) is Rs.47.03 crore. The year wise CSR expenditure in last three years has been as follows:

Year		Amount in Rs. lakh
2007-08	-	2721.43
2008-09	-	9883.93
2009-10 (upto December 2009)	-	4703.24



MANGANESE ORE (INDIA) LTD. (MOIL)

The following major activities have been undertaken by the Company:

- MOIL incurred Rs.5.42 crore under CSR schemes during 2008-09 as compared to Rs.2.87 crore during previous year.
- MODEL Manganese Gram-Adoption of Villages: So far 5 villages have been adopted by the Company - 2 in Madhya Pradesh and 3 in Maharashtra. The Company has carried out total development in these villages such as construction of roads, toilets, school, water supply shemes, community centers, etc. In addition, the Company also provides medical care, educational facilities by construction of schools etc.
- Provided eye care to the rural poor: So far 1000 cataract surgeries have been sponsored by the Company including lens implantation
- Provided fully air-conditioned mobile hospital to various parts of the country fully equipped with cardiac-cum-trauma care facilities.
- Empowering Women through formation of Self Help Groups (SHGs)
- Provided motor boats in the Bhandara and Chandrapur districts of Maharashtra for flood relief.

Besides the above, the Company has been taking care of physically challenged persons by providing tri-cycles, hearing aids, calipers, etc. The Company also carrying out a variety of CSR programmes including slum development, etc.

The details of the expenditure on CSR activities are as under:

CSR Budget for the year 2009-10	Rs. 11.00 crore
CSR Budget as per MoU for the year 2009-10	Rs. 3.00 crore
Actual CSR for the year 2007-08	Rs. 2.87 crore
Actual CSR for the year 2008-09	Rs. 5.42 crore
Actual CSR for the year 2009-10*	Rs. 46.47 lakh
(upto December 2009- Provisional)	

** The Company has approved CSR projects valuing Rs. 2.42 crore upto December, 2009. The work are under progress.*

FERRO SCRAP NIGAM LTD. (FSNL)

FSNL has identified Government higher secondary schools situated in the village nearby FSNL's units at Rourkela, Burnpur, Bhilai, Bokaro, Visakhapatnam, Durgapur, Dolvi (Maharashtra), Duburi (Orissa) and Raigarh (Chattisgarh). Every year, the list of meritorious students belonging to SC/ST/OBC communities and physically challenged students, are obtained from the principals of the concerned higher secondary schools, and based on this list provided by the school management, school uniforms are distributed to such students. Apart from incurring the expenditure towards distribution of school uniforms, FSNL has also developed a play ground in the higher secondary school in Dundera village near Bhilai, with provision of a handball goal post, as a measure of developing children in sports activities, and also supplied the sports materials for the benefits of the children. FSNL planted 200 saplings (of fragrant flowers and shading breed) in the school premises at Dundera Higher Secondary school near Bhilai, in order to create awareness among the children towards environmental protection and its importance in human life. A multi-purpose hall with verandah and other infrastructure has been constructed by FSNL in the school at Dundera village near Bhilai for the benefit of the school management and the children as a whole.

MSTC LTD.

MSTC is committed to social responsibility and in the year 2009-10, an amount equivalent to 2% of the retained profit of the previous year was budgeted, which is Rs. 131 lakh. The expenditure has been incurred on welfare measures such as hearing aids to disabled children, vocational training center for women, running of blood transfusion center, school for street children etc.



An AIDS Awareness Camp organized by MECON.

MECON LTD.

MECON Ltd., a Public Sector Undertaking under the Ministry of Steel has been intimately associated with the Country's Iron and Steel Industry since last more than four decades and has played a significant role in its growth and development. MECON's concern towards Corporate Social Responsibility (CSR) has been duly reflected in its engagement in rural/ community development activities since 60's.

Thrust Areas

- Health
- Education
- Economic empowerment of women
- Vocational training
- Aiding the handicapped/disabled
- Village/Rural based programs
- Afforestation program and other welfare activities

Welfare of Weaker Sections of the Society

- Medical camps in rural and slum areas
- HIV/AIDS awareness program
- Distribution of bleaching powder in slum area / villages during rainy season
- Mass inoculation of children during pulse polio program
- Family planning
- Community education scheme

Community education scheme

- Under this scheme, at present there are twelve (12) nos. primary educational centers running successfully. Presently, the total numbers of students in all these centers are around four hundred (400). Each center has a dedicated teacher, and he/she is given a monthly honorarium amount.
- As per the requirement, these educational centers are being regularly provided with study materials such as slates, pencil, black boards, charts, chalks, books, exercise copies etc.



Empowerment of Women

Resource generation scheme

Under this scheme, at present there are eight (8) nos. resource generation centers (stitching centers) running successfully. Presently, the total numbers of students in all these centers are around one hundred fifty (150). Each center has a dedicated teacher, and she is given a monthly honorarium amount.

Welfare of Disabled Persons

Assistance to Cheshire Home (a home for the disabled persons) located in the vicinity of Ranchi in the following areas:

- Construction of new kitchen block.
- Construction of cow-shed.
- Providing crutches, calipers, artificial limbs, wheel chairs etc.
- Training in chalk making.
- Stitching training center for the women folk.
- Construction of boys hostel for the school for blind
- Renovation of school building for deaf and dumb.
- Renovation assistance for the leper's colony.

Vocational Training

Training being imparted in the following courses :

- Radio and TV Technician (1 Year Course)
- Electrical Technician (1 Year Course)
- Welding Technology (1 Year Course)
- Computer Applications (1 Year Course)

KIOCL LTD.

KIOCL Limited has contributed towards CSR activities with the focus primarily being in the area of Education and Health care. In the current financial year, some of the activities undertaken by the Company in respect of various CSR activities are as under :

- Running of Schools and other expenses on education.
- Forest, ecology and other related matters.
- Distribution of medicine and extension of other medical facilities to the tribal population and other people of nearby areas.
- Financial Assistance to the disabled person for procurement of equipment.
- Financial assistance to schools at Mangalore and neighbouring areas for conducting sports and other related activities.
- Free medical camp and eye checkup was organized by the Company at Meenakaila area, Baikampady, Mangalore for the villagers.
- Contribution of Rs. 25 lakh to Chief Minister's Calamity Relief Fund towards flood victims of Northern part of Karnataka.

In the current financial year 2009-10, the Company has earmarked a sum of Rs. 150 lakh towards CSR. During the year, Company has spent about Rs. 173.11 lakh upto December 2009 towards CSR activities.

BIRD GROUP OF COMPANIES (BGC)

The Orissa Minerals Development Co. Ltd. (OMDC) a company under the group, carried out CSR activities like maintenance of existing planted area, existing water supply pipelines, parks, periphery road etc. mostly in and around the mines in Barbil in Keonjhar district, Orissa.



CHAPTER-XXI

TECHNICAL INSTITUTES UNDER THE MINISTRY OF STEEL

The Ministry of Steel strives to constantly upgrade the technical skills of the workforce through courses and programmes. The following institutes set up for the purpose deserve a mention for their worthwhile role and contribution:

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 foundation stone for the Biju Patnaik National Steel Institute (BPNSI) at Puri was laid on January 1, 2001. The institute is registered under the Societies Registration Act, 1980 and started functioning from January 1, 2002. The JPC chairman is also the Chairman of the BPNSI. The 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 the BPNSI at Puri as a full-fledged institute with capital funding from JPC. Presently, the Institute is being run from two separate buildings in Puri, having laboratory, library, and seminar room facilities. A workshop for welding technology has also been set up at Puri to impart hands-on practice to the trainees.

Some of the major initiatives taken by the BPNSI are enumerated below:

- Since October 2006, the institute has been conducting a course on "Advanced Certificate in Iron and Steel Manufacturing and Plant Management" which prepares students to take managerial positions in the industry. Currently the third batch of students is undergoing the course.
- For the benefit of the working executives, the said course is being offered from January 2007 onwards as part of its Training and Further Education (TAFE) Programme. In January 2009, admission into the third batch in distance mode is going on.
- The revenue department of Government of Orissa is processing the application of the Institute for land for setting up its permanent campus and shortly it is expected.
- The last batch of students have joined reputed steel companies like Suraj Products Ltd, Shakti Pack Ltd, East India Ltd, Tayo Rolls ltd, Aarati Steels Ltd to name a few.

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 Furnaces (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 presently Joint Secretary, Ministry of Steel, with the following aims and objectives.

Aims and Objective of the NISST

- To provide trained technical manpower to the secondary steel sector through short-term and long-term courses and to update their knowledge base.
- To bring awareness about the State-of-Art Technology by holding Seminars, Workshops, and Symposia.
- To provide various industrial services and testing facilities.
- To extend consultancy services to industries in terms of solving technological problems, improving energy efficiency and reducing pollution levels.
- To conduct Research, Development and Design work in frontier areas for providing updated technology to this sector.
- To organise for documentation and information retrieval services to the industry.
- To provide a platform for interaction between industry and educational as well as research institutions.



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

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

NISST is an ISO 9001-2000 Certified organization for its laboratories. During the year 2008-09, the Institute achieved milestones and took initiatives as outlined below:

MAJOR ACTIVITIES OF NISST:

- The Job Oriented Certificate Course (JOCC) in Steelmaking and Rolling Technology run by NISST entered its 19th year of operation. This has already provided more than 550 skill/ semi-skilled, supervisory level technical personnel to the secondary steel sector, thereby opening a new channel or employment.
- Metallurgical and mechanical testing were conducted for various Govt. agencies/ constructers/ service providers on regular basis.
- Upgradation of pollution control and other testing laboratories of NISST at Mandi Gobindgarh is in the final stage of completion and the laboratories will shortly be dedicated to the service of the industry as well as the nation.
- NISST is continuously providing technical support to the secondary steel sector to improve quality, yield, value addition and cost reduction to meet the challenges.
- Human Resource Development activities are being continuously undertaken to improve knowledge and skill of the employees of the secondary steel sector through modular courses.

INSTITUTE FOR STEEL DEVELOPMENT & GROWTH (INSDAG)

The initiatives for setting up the INSDAG emanated from the steel producers and the Institute was registered as Society on 26th August 1996. The mission of the Institute is to work in unison with all stakeholders in the steel industry so as to evolve ways and means for efficient usage of steel and provide optimum value to the customers. The Institute primarily works towards the development of technology in steel usage and build market for the steel fraternity.

Education/Training of Professionals and Teaching Faculty on Steel Design: For enhancing the knowledge and skill of faculty and professionals in the country on structural steel design methods and technologies, several Refresher Courses and Short Term Training Programme were conducted. INSDAG also took several consultancy assignments from Government agencies to showcase steel intensive structures usefulness and cost effectiveness in large commercial/ office complexes, multistoried car parks, bridges etc.

INSDAG is continuously engaged in various seminars, conferences, training and knowledge dissemination programmes all across the country. Architects, design engineers and planners have been educated in the innovative uses of steel in modern structures and constructions. INSDAG is regularly engaged in publication of various designs and updation of current designs in structural engineering. INSDAG has contributed significantly for design and manufacture of Steel Bullock Carts, which has helped the rural and agricultural sector. Efforts to promote various innovative uses of steel are being continuously taken up by INSDAG.



CHAPTER-XXII

IMPLEMENTATION OF THE RIGHT TO INFORMATION ACT, 2005

With a view to promoting openness, transparency and accountability in the administration and good governance of the country, 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. The Act also aims to protect the citizens' Right to Information to enable every citizen to secure access to information from public authorities. Correspondingly, dissemination of such information has become an obligation for all public authorities.

Implementation of the RTI Act in the Ministry of Steel

One Director level officer has been nominated as nodal officer for implementation of the RTI Act and its monitoring in the Ministry. The officers of the rank of Deputy Secretary/Director, or equivalent level, and the concerned Joint Secretary have been nominated as Public Information Officer (PIO) and 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/Public Information Officer, Assistant Public Information Officers have been hosted on the Ministry's website www.steel.gov.in. All the public authorities under the administrative control of the Ministry of Steel have also hosted the manual of 17 items on their respective websites and have nominated their respective Public Information Officers/ Assistant Public Information Officers and Appellate Authority. During the year 2009-10 (up to December 31, 2009), the Ministry of Steel alone had received 106 RTI applications which were duly disposed of within the prescribed time limit.

JOINT PLANT COMMITTEE (JPC)

The manual of 17 items has been drawn up and hosted in the JPC Website. JPC has designated senior officers as Public Information Officers who would be responsible for disposal of requests received under the Act. In addition, an appeal system under the highest authority of JPC has also been created as per the provisions of the Act. All the RTI applications received by the JPC have been disposed of in time.

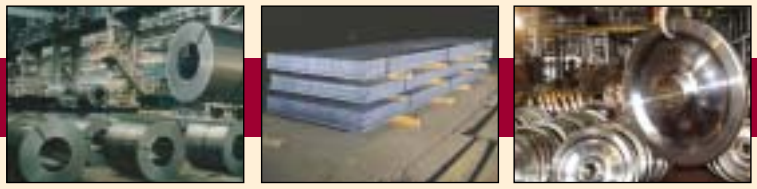
STEEL AUTHORITY OF INDIA LTD. (SAIL)

The manual of 17 items, details of appellate Authority/Public Information Officer, Assistant Public Information officers and the name of SAIL Plants/Units with their categories have been updated and hosted on the SAIL website www.sail.co.in. All the SAIL Plants/Units under the administrative control of SAIL have also hosted the manual of 17 items on SAIL website and have nominated their respective Public Information Officer/Assistant Public Information Officer and Appellate Authority.

A total of 2500 application were received in SAIL as a whole during the month of April to December 2009 for the financial year of 2009-10, out of which 260 were from its Corporate office. Out of these 260 receipts, 141 cases were related to SAIL Plants/Units which have been transferred to the respective Plants/Units under section 6(3) of RTI Act. The remaining 119 cases were disposed of. All the applications were replied within the stipulated time period.

An awareness programme/workshop on "Obligation of Public Authorities under RTI' was organised in July, 2009 at Corporate office for the benefit of all PIOs of the SAIL Plants/Units and senior officers of Corporate office. Also at Plants/Units various programmes to spread awareness of RTI are being organised from time to time.

Since enactment of the RTI Act, 2005 , a total of 7266 applications were received and 803 appeals were received and all the applications were replied within the stipulated time period. Out of the total application only 141 cases were referred to CIC and all cases disposed off favourably by CIC except one case.



RASHTRIYA ISPAT NIGAM LTD. (RINL)

A total of 141 requests were received under the Right to Information Act, by RINL during the period 1st April 2009 to 31st December 2009. These 117 requests have been disposed off by furnishing information to the applicants and 24 requests were pending as on 31st Dec 2009. There were 4 (four) No. of cases where appellant had appealed to Central Information Commission (CIC) and all the cases were disposed of by the CIC.

A Round Table Meeting on Right to Information Act-2005, among the Public Information Officers of various Public Sector units located in and around Visakhapatnam, was organised on 08.09.2009. This has greatly helped in establishing a network among the local PSUs and exchange of views/information, for better implementation of the Act.

With a view to facilitating channelising of information to the CPIO, 01 Nodal Officer and 15 Contact officers have been added to the existing 13 Nodal Officers and 29 Contact Officers. Information available in the 17 manuals of the RTI portal in company website are being regularly updated in accordance with the requirement of section 4(1) of Right to Information Act-2005. Frequently Asked Questions and Answers (FAQs) on implementation of RTI Act have also been compiled, printed in local language and distributed in the township and neighbouring villages of RINL/VSP, for wider publicity among the public and for clarification of doubts.

NMDC LTD.

Implementation of RTI Act 2005 in NMDC:

NMDC has published on its website, www.nmdc.co.in, information under Sec 4 (b) of the RTI Act 2005. NMDC website, which has specifically provided for information under the RTI Act as also other information, statutory or otherwise, list of PIOs/AA, are being updated regularly for the information of the public. Annual Reports of the Company, which gives lots of information on its working, are widely circulated and NMDC is also registering the receipt of request for information to its final disposal, including decision of the Appellate Authority in the RTI-MIS System as introduced by the Central Information Commission, New Delhi. 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 during the period 01.04.2009 to 31.12.2009 is a under:

No. of queries received	No. of queries replied to	Queries refrerred to CIC	Queries disposed of by CIC
48	43	1	1

MANGANESE ORE (INDIA) LTD. (MOIL)

MOIL has taken the major initiatives for implementation of RTI Act, 2005. MOIL has appointed PIOs at the Corporate Office and PIOs/APIOs have also been appointed in all its Mining Units. Director (Production and Planning) has been appointed/ designated as Appellate Authority under the Act. The names of all the PIOs/APIOs and the Appellate Authority has also been hosted on MOIL's website www.moil.nic.in. The obligation of the preparation of the 17 manual prescribed in clause (b) subsection (1) Section (4) has been complied with and these have also been hosted on MOIL's portal within the stipulated time frame given under the Act.

On the basis of the directives issued by Central Information Commission and the Ministry of Steel from time to time, MOIL has been updating the requisite information every three months. The monthly return is being sent to concern authorities regularly.

A lot of awareness has been generated in order to make employees aware about the intention and true spirit of this Act. The various provisions of the Act have been highlighted by issue of the circulars and the employees have been asked to keep transparency in day-to-day work and maintain all the records in a proper/systematic manner. MOIL has also hosted/updating in their website at regular intervals for the public so that public has to resort to use various provisions under the RTI Act to obtain information to the ministry.

For the awareness of employees at large, a Seminar was organised to make them understand the importance of RTI Act in present day scenario and highlighted the provisions of the Act.



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

Applications received during 2009-10 (upto Dec 2009)	19
Applications disposed of during 2009-10 (upto Dec 2009)	19
Applications pending as on 31.12.2009	NIL

MSTC LTD.

The company is complying with the provisions of the RTI Act, 2005. Information as sought under the Act is provided to applicants. The company has appointed a CPIO and PIO at the head office and PIO and APIO at various locations for effectively complying with provisions of the RTI Act. During the period April 2009 to December 31, 2009, the total number of RTI applications received was 35. All these 35 applications have been disposed of.

FERRO SCRAP NIGAM LTD. (FSNL)

FSNL has implemented Right to Information Act, 2005 by nominating CPIO/APIO, finalisation of manuals of 17 items (manuals) and hosting of manuals on the company website (www.fsnl.nic.in). Quarterly reports are submitted to the Ministry of Steel and CIC regularly. All requests for information are dealt with as per the prescribed guidelines of the RTI Act, 2005. The total number of RTI applications received during the period April 1, 2009 to December 31, 2009 was 14. All these 14 applications have been disposed of.

HINDUSTAN STEELWORKS CONSTRUCTION LTD. (HSCL)

Right to Information Act 2005 has been implemented in HSCL. The company has nominated one CPIO and seven APIOs. CMD, HSCL is the first appellate authority under the act for the company.

From April 1, 2009 to December 2009 the summary statement of application received and disposed of is as under:

- Total No. of RTI application received : 73
- Total No. of RTI application disposed of by CPIO/APIO : 69
- Total No. of First appeals received : 26
- Total No. of First appeals disposed of by Appellate Authority: 20

MECON LTD.

In line with the directives of Govt. of India, MECON has also implemented the Right to Information Act, 2005. All the relevant manuals pertaining to RTI Act, 2005 have been hoisted on "MECON's Website www.meconlimited.co.in with effect from 19th September, 2005. A Public Information Officer (PIO) has 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 frame.

The status of applications received and processed during the year 2008-09 and 2009-10 (Till 15th December, 2009) under Right to Information Act, 2005 are given below:

		2009-10 (01.04.2009 to 15.12.2009)
Opening Balance as on 1.1.2009	:	01
Application received during the year	:	37
Total	:	38
Less : Applications processed during the year within time frame	:	32
Less : Applications transferred to other Public Authority	:	02
Closing balance as on 15.12.2009	:	04



SPONGE IRON INDIA LTD. (SIIL)

As per the Act, the information sought was furnished by the Company as and when requests were received.

KIOCL LTD.

The Company is complying with all the provisions of Right to Information Act, 2005 both in letter and spirit. Information as sought under the Act are provided well within the prescribed time. The Company has appointed Public Information Officers/Assistant Public Information Officers at various locations for effectively complying with various provisions of the Act. Necessary details as required under the Act and updated from time to time are also posted in Company's website.

RTI information		**(01.04.2009 to 31.12.2009)**
■ Total Number of RTI applications received	:	49
■ Total Number of RTI applications disposed	:	49
■ Total Number of first appeals received	:	5
■ Total Number of first appeals disposed	:	5

BIRD GROUP OF COMPANIES (BGC)

In line with the directives of the Government of India, Bird Group of Companies (BGC) has also implemented the Right to Information (RTI) Act, 2005. All the relevant manuals pertaining to RTI Act 2005 have been hosted on BGC's website www.birdgroup.gov.in

The Public queries are regularly attended through a Public Information Officer at its Corporate Office and through Assistant Public Information Officers at operational sites of OMDC and BSLC.



CHAPTER-XXIII

DEVELOPMENT OF NORTH-EASTERN REGION

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

STEEL AUTHORITY OF INDIA LTD. (SAIL)

Hot Dip Galvanising Line Project at Dagaon, Assam

- In line with the thrust given to development of the North-East and based on a market survey, SAIL Board in January 1997 approved the setting-up of a Hot Dip Galvanising Line (HDGL) Project to cater to the demand of corrugated and plain galvanized sheets in the North-Eastern Region. The envisaged capacity of the Plant was 40,000 tonnes per annum and the estimated cost was Rs. 42.85 crore.
- The work was awarded to MECON in July 1997 (completion: 18 months). Civil work was in advance stage of completion and equipment supply had also started. However, due to delay in completion of approach road and the bridge work by Govt. of Assam and stoppage of work due to heavy rains and floods in the area, the project got delayed.
- In view of the time and cost over run of the project, M/s IFCI re-appraised the project in October 1999 and indicated that under the existing conditions and without fiscal incentives (viz. exemption from excise duty and income tax and transport subsidy), the project is not financially viable.
- Accordingly, it was decided by SAIL Board in March 2000 that the project be kept in abeyance and alternate strategies, including identification of suitable party who may be interested in owning and executing the project, may be examined. The work was suspended in April 2000.
- M/s North East Steel (NES), Guwahati were selected as prospective JV partner in July 2001 and draft Memorandum of Understanding (MoU) was signed with M/s NE Steel Pvt. Ltd. (NESPL- the newly incorporated company with consortium members of erstwhile NES as its Directors) in May 2002 and revised MoU in March 2005.
- A Joint-venture Company (JVC) named N.E. Steel and Galvanising Pvt. Ltd. (NESGPL) has been incorporated in December 2005 and subsequently, the Deed of Transfer has been signed in June 2006 amongst MECON, SAIL and NESGPL for transfer of the turnkey contract of MECON from SAIL to NESGPL.
- De-reservation of HDGL land has been approved by Govt. of Assam in September 2007 and subsequently, the land records have been corrected. Further actions to be taken are: a) Payment of land revenue tax from 1997 to 2007; and b) obtaining a 'Patta' for this land in SAIL's favour so that SAIL's rights on the land can be transferred to NESGPL.
- After transfer of SAIL's rights on the land for the HDGL Project, transfer of financial documents, contract document and vouchers for the expenditure incurred by SAIL on the HDGL Project (including titles and deeds) to NESGPL will be carried out and the work will be resumed by the JVC. The necessary documents in this regard have already been prepared and are ready for transfer at Guwahati office.

Installation of Steel Processing Unit at Guwahati

With a view to meet increased customer demand for tailor made steel products, it was felt that there is a need to set up Steel Processing Unit (SPU) near the consumption points, particularly in a State where no steel plant is located and where steel consumption is low as compared to national average. As per the National Steel Policy, per capita steel consumption in rural areas is to improve from 2 kg. to 4 kg. by 2019-20. The Working Group on Steel Industry for 11th Five Year Plan emphasized that "an important potential area for steel usage resulting from economic growth and rising income levels in the household sector is in the rural areas. However, unlike urban areas, in rural areas concerted efforts would be required to convert this rural potential into actual consumption of steel".

Keeping this in view, SAIL is setting up Steel Processing Units at various locations including the North-East region. Guwahati has been identified as a suitable location for setting up of the SPU based on the demand and availability of steel especially for construction/housing sector, subject to certain exemptions/ concessions from the State/Central Government.



The facilities proposed to be installed at Guwahati are TMT Bar Mill, Galvanising, cut-to-length and corrugation line, De-coiling, straightening and cutting of TMT coils. The land for the project has been identified at Tilingaon near IIT, Guwahati and the State Government has approved land acquisition in December 2007. The proposal for setting up the SPU has been approved by SAIL Board in April 2008. SAIL has already made payment of Rs. 7.97 crore for 31 acres of land. Order has been placed for soil investigation and tenders are under evaluation for boundary wall work. Further, the matter for concessions and subsidies has been taken up by SAIL with the Government of Assam.

RASHTRIYA ISPAT NIGAM LTD. (RINL)

RINL is servicing North-Eastern Region directly through Branch Sales Office, Kolkata and a Consignment Sales Agency (CSA) at Guwahati and District Level Dealer (DLD) at Siliguri, Darjeeling. In order to promote sales and service to customers of the North-Eastern Region, Branch Sales Office, Kolkata of RINL is extending additional discount to the Project Customers of the Region up to Rs. 500 per tonne.

RINL is also supplying steel products directly to the Hydro Electric and other Projects in the North Eastern Region through RINL's Stockyard at Kolkata.

RINL has made sales of 5327 tonnes through the above channels to North-Eastern region customers during the period April-December 2009.

HINDUSTAN STEELWORKS CONSTRUCTION LTD. (HSCL)

HSCL has been engaged in execution of Projects in the north eastern states of Sikkim and Tripura since January 2005. The company, at present, is executing projects worth about Rs. 835 crore in these two states, which will help in infrastructure and tourism development of the north eastern states.

Construction of Rural Roads in North-eastern region in India under Pradhan Mantri Gram Sadak Yojna (PMGSY) by HSCL



HSCL's Participation in Bharat Nirman Programme and Development of North Eastern States

The company has a proud privilege of participating in the Bharat Nirman Programme of the Government of India in construction of rural roads in the North Eastern State of Tripura under Pradhan Mantri Gram Sadak Yojana (PMGSY). HSCL has been working as a Project Implementation Unit (PIU) there with the responsibility starting from preparation of Detailed Project Report (DPR) to the maintenance of the roads for five years after construction. The present value of work under PMGSY is about Rs. 500 crore in Tripura, which is likely to go up to Rs. 700 crore in phases. In the state of Jharkhand also HSCL has been nominated as one of the PIUs for taking up construction of about 1400 km of rural roads under PMGSY. DPR for this project has so far been approved for Rs. 152 crore by National Rural Roads Development Agency (NRRDA). The value is expected to go up to Rs. 500 crore. HSCL has taken up the work of construction of three numbers of 150 bedded District Hospitals one each in North, South and Dhalai District and one 100 bedded hospital at Teliamura under Department of Health, Government of Tripura. Staff Quarters at the three District Hospitals are also being constructed by HSCL.

Over and above the Rural roads under PMGSY and District Hospitals and Health care Centres, HSCL has taken up Development of Industrial area under Tripura Industrial Development Corporation Ltd. and construction of 3 Market Complexes and one Residential Complex at Agartala under Agartala Municipal Council.

HSCL has been engaged in execution of the following two Projects in the North Eastern States of Sikkim also, which will help in infrastructure and tourism development of states :

- Construction of Pilgrimage Centre at Solopok, involving installation of a 100 feet tall idol of Lord Shiva and a number of shrines of Hindu deities at the hilly terrain of picturesque Sikkim.
- Construction of Cultural Centre and tourist cottages at Yangang, which will immensely contribute in tourism development in Sikkim.

The Company, at present, is executing projects worth about Rs. 835 crore in these two North Eastern States. The value will almost be doubled during the coming month.

BIRD GROUP OF COMPANIES (BGC)

One Company under the Bird Group of Companies namely Scott and Saxby Ltd. (SSL) has carried out sinking of deep tube wells in the state of Tripura under Public Health Engineering Department to raise portable water in the remote villages around Agartala.

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, kayanite, 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) NMDC Limited;

   (iv) Manganese Ore (India) Limited (MOIL);

   (v) MSTC Limited;

   (vi) Ferro Scrap Nigam Limited (FSNL);

   (vii) Hindustan Steelworks Construction Limited (HSCL);

   (viii) MECON Limited;

   (ix) Bharat Refrectories Limited (BRL)*;

   (x) Sponge Iron India Limited (SIIL);

   (xi) KIOCL Limited; and

   (xii) Bird Group of Companies.

*BRL was merged with SAIL during 2009.

ANNEXURE - II

MINISTERS IN-CHARGE AND OFFICERS IN THE MINISTRY OF STEEL DURING 2009-10

(PLEASE SEE CHAPTER III)

Minister of Chemicals & Fertilizers and Steel	Shri Ram Vilas Paswan (upto 22.05.2009)
Minister of Steel	Shri Virbhadra Singh (with effect from 28.05.2009)
Minister of State for Steel	Shri Jitin Prasada (upto 22.05.2009)
	Shri A. Sai Prathap (with effect from 28.05.2009)
Secretary	Shri Pramod Kumar Rastogi (upto 31.10.2009)
	Shri Atul Chaturvedi (with effect from 01.11.2009)
Special Secretary & Financial Adviser	Shri B.S. Meena
Joint Secretaries	Shri Elias George
	Dr Dalip Singh
	Dr Udai Pratap Singh
Economic Adviser	Ms Chandralekha Malviya
Chief Controller of Accounts	Ms L.N. Tochhawng
Industrial Adviser	Shri A.C.R Das
Directors	Shri J.P. Shukla
	Shri Nihar Ranjan Dash
	Shri Sanjay Mangal
	Shri L. Siddhartha Singh
	Ms Indrani Kaushal
	Shri Mukhmeet Singh Bhatia (upto 12.10.2009)
Director Level officers	Dr Arja Srikanth, PS to Hon'ble Minister of State for Steel
	Shri Amit Pal Singh, OSD to Hon'ble Minister of Steel
	Shri Nand Lal, Principal Staff Officer
	Shri D. Kashiva, Additional Industrial Adviser (upto 31.01.2010)
	Shri J. Alam, PS to Hon'ble Minister of Chemicals & Fertilizers and Steel (upto 22.05.2009)
Deputy Secretaries	Shri M.K. Roy
	Ms A. Dhanalakshmi
	Shri Rakesh Bhatnagar
	Ms Jaya Dubey (upto 15.11.2009)
	Ms B. Nalini (upto 31.12.2009)
Deputy Secretaries level officers	Shri Anand Pratap Singh, PS to Hon'ble Minister of Steel
	Shri B.D. Ghosh, Joint Industrial Adviser
	Shri Ved Prakash Singh, Joint Director (Official Language)
	Shri Rupinder Singh, PS to Hon'ble Minister of State for Steel (upto 28.05.2009)
	Shri R.P. Rathi, OSD to Hon'ble Minister of Chemicals & Fertilizers and Steel (upto 02.08.2009)

ANNEXURE - III

PRODUCTION OF MAIN AND SECONDARY PRODUCERS

(SUMMARY)

('000 tonnes)

SL.NO.	ITEM / PRODUCER PRODUCTION	2005-06	2006-07	2007-08	2008 - 09	Apr - Dec 2009*
I.	**CRUDE STEEL:**					
	Main Producers	21402	21868	21789	21755	17122
	ASP + VISL	292	309	315	263	228
	Other Producers					
	E.A.F.Units (incl.Corex & MBF/EOF)	11273	13250	14820	18365	13529
	Induction Furnaces	13493	15390	16933	18054	14896
	TOTAL (Crude Steel)	**46460**	**50817**	**53857**	**58437**	**45775**
	% share of Other Producers	53.3%	56.4%	59.0%	62.3%	62.1%
II.	**PIG IRON:**					
	Main Producers	1007	860	936	589	575
	Other Producers	3688	4133	4378	5618	3673
	TOTAL (Pig Iron)	**4695**	**4993**	**5314**	**6207**	**4248**
	% share of Other Producers	78.6%	82.8%	82.4%	90.5%	86.5%
III.	**SPONGE IRON:**					
	Gas Based	4545	5265	5845	5516	4560
	Coal Based	10280	13080	14531	15575	10928
	TOTAL (Sponge Iron)	**14825**	**18345**	**20376**	**21091**	**15488**
	% share by Process (Coal Based)	69.3%	71.3%	71.3%	73.8%	70.6%
IV.	**FINISHED STEEL FOR SALE (Alloy/Non-Alloy):**					
	Main Producers	16413	17614	18020	17216	12887
	Other Producers	34809	40047	43332	46229	35224
	Less IPT/Own Consumption	4656	5132	5277	6281	4262
	TOTAL (finished steel)	**46566**	**52529**	**56075**	**57164**	**43849**
	% share of Other Producers	74.8%	76.2%	77.3%	80.9%	80.3%

**Provisional*

EAF : Electric Arc Furnace
MBF : Mini Blast Furnace
EOF : Energy Optimising Furnace
IPT : Inter-Plant Transfer

ANNEXURE - IV

PRODUCTION OF CRUDE/LIQUID STEEL

(By Producers)

('000 tonnes)

Producer	2005-06			2006-07			2007-08			2008-09			*Apr - Dec 2009		
	Working Capacity	Prod.	% Utili sation	Working Capacity	Prod.	% Utili sation	Working Capacity	Prod.	% Utili sation	Working Capacity	Prod.	% Utili sation	Working	Prod.	% Utili sation
PUBLIC SECTOR															
B S P	3925	5054	129%	3925	4799	122%	3925	5055	129%	3925	5183	132%	3925	3927	133%
D S P	1802	1801	100%	1802	1869	104%	1802	1914	106%	1802	1886	105%	1802	1468	109%
R S P	1900	1661	87%	1900	1990	105%	1900	2093	110%	1900	2083	110%	1900	1570	110%
B S L	4360	4228	97%	4360	4067	93%	4360	4127	95%	4360	3577	82%	4360	2695	82%
I S P	520	434	83%	500	472	94%	500	458	92%	500	417	83%	500	287	77%
A S P	234	140	60%	234	150	64%	234	157	67%	234	168	72%	234	152	86%
V I S L	118	152	129%	118	159	135%	118	158	134%	118	95	81%	118	76	85%
TOTAL (SAIL) :	**12859**	**13470**	**105%**	**12839**	**13506**	**105%**	**12839**	**13962**	**109%**	**12839**	**13409**	**104%**	**12839**	**10175**	**106%**
R I N L	**2910**	**3494**	**120%**	**2910**	**3497**	**120%**	**2910**	**3129**	**108%**	**2910**	**2963**	**102%**	**2910**	**2308**	**106%**
TOTAL : (Public Sector)	**15769**	**16964**	**108%**	**15749**	**17003**	**108%**	**15749**	**17091**	**109%**	**15749**	**16372**	**104%**	**15749**	**12483**	**106%**
PRIVATE SECTOR															
Tata Steel Ltd	5000	4730	95%	5000	5174	103%	5000	5013	100%	5000	5646	113%	6800	4867	95%
Majors	7160	6968	97%	9750	8410	86%	11400	9538	84%	14800	10218	69%	17200	9835	76%
Other E A F Units/ Corex-BOF/MBF-EOF	4542	4305	95%	6844	4840	71%	6831	5282	77%	8614	8147	95%	8614	3694	57%
INDUCTION FURN. UNITS	18700	13493	72%	19500	15390	79%	20865	16933	81%	22180	18054	81%	24400	14896	81%
TOTAL : (Private Sector)	**35402**	**29496**	**83%**	**41094**	**33814**	**82%**	**44096**	**36766**	**83%**	**50594**	**42065**	**83%**	**57014**	**33292**	**78%**
GRAND TOTAL :	**51171**	**46460**	**91%**	**56843**	**50817**	**89%**	**59845**	**53857**	**90%**	**66343**	**58437**	**88%**	**72763**	**45775**	**84%**

Majors = Essar, Ispat, JSWL and JSPL

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ANNEXURE - V

PRODUCTION OF CRUDE/LIQUID STEEL 2005-06 TO 2009-10

(BY ROUTE)

('000 tonnes)

CATEGORY OXYGEN ROUTE	2005-06	2006-07	2007-08	2008-09	2009-10* (Apr. - Dec.)
B S P	5054	4799	5055	5183	3927
D S P	1801	1869	1914	1886	1468
R S P	1661	1990	2093	2083	1570
B S L	4228	4067	4127	3577	2695
I S P	434	472	458	417	287
V I S L	152	159	158	95	76
R I N L	3603	3606	3322	3145	2449
T S L	4730	5174	5013	5646	4867
JSW Steel Ltd.	2268	2643	3147	3218	3812
Other Oxygen Route	576	724	872	995	729
TOTAL OXYGEN ROUTE :	**24398**	**25394**	**25966**	**26063**	**21739**
ELECTRIC ROUTE					
ELECTRIC ARC FURNACE					
A S P	140	150	157	168	152
Essar Steel Ltd.	2510	3006	3564	3342	2598
Ispat Industries Ltd.	2190	2761	2827	2201	1956
Jindal Steel & Power Ltd.	564	803	1219	1457	1469
Lloyds Steel Ltd.	515	537	463	460	386
Jindal Stainless Ltd.	542	585	585	470	398
Other Electric Arc Furnace	2108	2191	2143	6222	4800
TOTAL ELECTRIC ARC FURNACE :	**8569**	**10033**	**10958**	**14320**	**11759**
ELECTRIC INDUCTION FURNACE					
Induction Furnace	**13493**	**15390**	**16933**	**18054**	**12277**
TOTAL ELECTRIC ROUTE :	**22062**	**25423**	**27891**	**32374**	**24036**
GRAND TOTAL :	**46460**	**50817**	**53857**	**58437**	**45775**

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ANNEXURE - VI

PRODUCTION OF PIG IRON

('000 tonnes)

Plants	2005-06	2006-07	2007-08	2008-09	*2009-10 (Apr. - Dec.)
A. PUBLIC SECTOR					
BHILAI STEEL PLANT	127	40	136	61	72
DURGAPUR STEEL PLANT	26	38	57	20	31
ROURKELA STEEL PLANT	15	44	26	1	10
BOKARO STEEL PLANT	166	160	98	78	80
IISCO STEEL PLANT	213	177	93	99	22
VISVESVARAYA I & S PLANT	21	49	31	8	1
RASHTRIYA ISPAT NIGAM	439	352	495	322	359
SUB TOTAL (A) :	**1007**	**860**	**936**	**589**	**575**
B. PRIVATE SECTOR					
OTHER BLAST FURNACE/ COREX UNIT	3688	4133	4378	5618	3729
SUB TOTAL (B) :	**3688**	**4133**	**4378**	**5622**	**3729**
TOTAL (A+B) :	**4695**	**4993**	**5314**	**6211**	**4304**
%age SHARE OF PRIVATE SECTOR	78.6%	82.8%	82.4%	90.5%	86.6%
Less: Inter Plant Transfer	5	40	30	4	56
Production for Sale	**4690**	**4953**	**5284**	**6207**	**4248**

** Provisional*

ANNEXURE - VII

PRODUCTION FOR SALE OF FINISHED STEEL

(NON-ALLOY & ALLOY STEEL)

('000 tonnes)

Plants	2005-06	2006-07	2007-08	2008-09	*2009-10 (Apr.-Dec.)
A. PUBLIC SECTOR					
BHILAI STEEL PLANT	3238	3232	3603	3604	2406
DURGAPUR STEEL PLANT	676	707	685	671	427
ROURKELA STEEL PLANT	1606	1939	2059	1944	1242
BOKARO STEEL PLANT	3504	3612	3592	3274	2546
IISCO STEEL PLANT	259	316	316	318	212
RASHTRIYA ISPAT NIGAM	2980	3042	2899	2558	2126
ALLOY STEEL PLANT	27	29	30	35	24
SALEM STEEL PLANT	171	183	231	180	137
VISVESVARAYA I & S PLANT	131	131	133	89	57
Less INTERPLANT TRANSFER	7	15	27		
SUB TOTAL (A) :	**12585**	**13176**	**13521**	**12673**	**9177**
B. PRIVATE SECTOR					
TATA STEEL LTD.	3821	4423	4472	4543	3710
MAJORS	9534	11629	13000	12086	12334
OTHERS	25275	28418	30332	34143	22890
Less Own Consump.(Majors and Others)	4649	5117	5250	6281	4262
SUB TOTAL (B) :	**33981**	**39353**	**42554**	**44491**	**34672**
TOTAL PRODUCTION FOR SALE(A+B)	**46566**	**52529**	**56075**	**57164**	**43849**
%age SHARE OF PRIVATE SECTOR	**73.0%**	**74.9%**	**75.9%**	**77.8%**	**79.1%**

** Provisional*

ANNEXURE - VIII

CATEGORYWISE PRODUCTION FOR SALE OF FINISHED STEEL (NON-ALLOY)

('000 tonnes)

CATEGORY	2005-06				2006-07				2007-08				2008-09				*Apr - Dec 2009			
	Main Prods.	Others Prods.	IPT/ OWN Consptn.	Total	Main Prods.	Others Prods. Consptn.	IPT/ OWN	Total	Main Prods. Consptn.	Others Prods.	IPT/ OWN Consptn.	Total	Main Prods.	Others Prods. Consptn.	IPT/ OWN	Total	Main Prods.	Others Prods. Consptn.	IPT/ OWN	Total
1. Non-Flat Products																				
Bars & Rods	4622	12014		16636	5161	13650		18811	5313	14875		20188	5186	15241		20427	4066	12344		16410
Structurals/Spl.Sec.	1087	3397		4484	1104	3780		4884	1003	4040		5043	935	4431		5366	644	3250		3894
Rails&Rly.Materials	894	119		1013	918	120		1038	951	135		1086	1012	170		1182	683	132		815
TOTAL (Non-flat product)	**6603**	**15530**		**22133**	**7183**	**17550**		**24733**	**7267**	**19050**	**0**	**26317**	**7133**	**19842**	**0**	**26975**	**5393**	**15726**	**0**	**21119**
2. Flat Products																				
Plates	2321	653		2974	2450	892		3342	2688	1369		4057	2498	1506		4004	1833	1072	1	2904
H R Coils/Skelp/Strips	4088	7116	1689	9515	4526	8464	1809	11181	4707	8977	2010	11674	4577	9633	3043	11167	3402	7566	2736	8232
H R Sheets	309	300		609	292	411		703	302	455		757	277	338		615	195	248	13	430
C R Coils/Sheets/Strips	1918	4881	2810	3989	1936	5511	3125	4322	1891	5560	3012	4439	1657	5941	2983	4615	1236	4321	1354	4203
GP/GC Sheets	807	2975		3782	813	3578		4391	729	3652		4381	711	3843		4554	548	2786		3334
Elec.Sheet	70	78		148	76	72	5	143	81	78		159	71	75		146	59	65		124
Tin Plates	32	150		182	17	155		172	15	168		183	19	182		201	13	142		155
T M B P		7	7	0	9	11	11	9		6		6	0	4		4				0
Tin Free Steel				0		2		2				0	0	6		6				0
TOTAL (Flat Products)	**9545**	**16160**	**4506**	**21199**	**10119**	**19096**	**4950**	**24265**	**10413**	**20265**	**5022**	**25656**	**9810**	**21528**	**6026**	**25312**	**7286**	**16200**	**4104**	**19382**
3. Pipes (Large dia)	63	995		1058	88	1110		1198	85	1250		1335	77	1788		1865	43	1173		1216
TOTAL (Fin. Carbon Steel)	**16211**	**32685**	**4506**	**44390**	**17390**	**37756**	**4950**	**50196**	**17765**	**40565**	**5022**	**53308**	**17020**	**43158**	**6026**	**54152**	**12722**	**33099**	**4104**	**41717**

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ANNEXURE -IX

IMPORT OF IRON AND STEEL THROUGH MAJOR INDIAN PORTS

('000 tonnes)

Sl.	CATEGORY	2005-06	2006-07	2007-08	2008-09	2009 *Apr - Dec
I	**Semi-finished Steel(Non-Alloy)**					
	Semis	372.1	268.7	156.3	481.9	250.7
	Re-rollable Scrap	169.5	154.7	200.8	98.4	61.6
	Finished Steel(Non-Alloy)					
	Bars & Rods	375.0	290.1	436.5	433.2	411.9
	Structurals	99.1	86.2	75.7	55.4	69.9
	Rly.Materials	0.3	2.5	20.0	23.4	6.6
	Plates	791.9	1124.5	1461.9	991.4	661.7
	HR Sheets	31.7	56.9	29.0	55.2	11.9
	HR Coils/skelp/Strips	1526.6	1571.7	2947.5	2293.0	2108.2
	CR Coils/Sheets	487.2	605.8	820.8	710.2	684.6
	GP/GC Sheets	134.1	195.2	268.2	294.3	209.4
	Elec.Sheets	215.9	252.4	241.9	222.3	208.3
	TMBP	1.9	1.8	3.4	2.3	0.6
	Tin Plates	75.8	124.1	100.9	101.5	109.0
	Tin Plates W/W	22.5	25.0	46.6	36.2	32.8
	Tin Free Steel	28.2	32.2	44.0	31.8	26.1
	Pipes	59.3	68.6	85.1	21.0	9.1
TOTAL Fin. Steel (Non-Alloy)		**3849.5**	**4437.0**	**6581.5**	**5271.2**	**4549.9**
TOTAL STEEL (Non-Alloy)		**4391.1**	**4860.4**	**6938.6**	**5851.5**	**4862.2**
II	**Alloy/Stainless Steel**					
	Finished Steel	455.0	490.6	448.0	570.0	659.8
	Semis	23.0	13.0	9.4	17.7	18.1
Total Alloy/Stainless Steel		**478.0**	**503.6**	**457.4**	**587.7**	**677.9**
Total Fin. Steel (Non-Alloy + Alloy)		4304.5	4927.6	7029.5	5841.2	5209.7
TOTAL Steel (I + II)		**4869.1**	**5364.0**	**7396.0**	**6439.2**	**5540.1**
III	**Other Steel Items.**					
	Fittings	59.3	68.6	85.1	25.2	22.5
	Misc.Steel Items	473.6	317.7	399.2	302.9	667.8
	Steel Scrap	3335.8	2185.3	2557.9	3161.9	3323.7
IV	**Iron**					
	Pig Iron	2.8	3.7	10.7	7.8	9.6
	Sponge Iron	-	0.1	0.8	0.5	0.1
	H.B.Iron	-	-	-	-	-
V	**Ferro-Alloys**	**49.7**	**105.9**	**199.0**	**144.6**	**64.1**
	GRAND TOTAL :	**8790.3**	**8045.3**	**10648.7**	**10082.1**	**9627.9**

** Provisional*

ANNEXURE-X

CATEGORY-WISE EXPORTS

('000 tonnes)

CATEGORY	2005-06	2006-07	2007-08	2008-09	*Apr - Dec 2009
SEMIS (Non-Alloy)	**388.3**	**665.3**	**373.0**	**661.0**	**293.0**
FINISHED STEEL (Non-Alloy)					
Bars & Rods	387.0	329.0	213.0	187.0	158.0
Structurals	89.4	75.0	73.0	73.0	43.0
Plates	149.8	106.5	153.0	264.0	51.0
H R Coils/Sheets	1371.1	1580.3	1391.0	943.0	279.0
C R Sheets/Coils	450.5	386.4	510.0	341.0	239.0
GP/GC Sheets	1842.6	2173.3	2026.0	1849.0	837.0
Elec. Sheets	24.4	1.5	25.0	8.0	3.0
Tinplates	43.0	37.0	36.0	88.8	50.0
Pipes	120.0	203.5	200.0	504.0	326.0
Total Finished Steel (Non-Alloy)	**4477.8**	**4892.5**	**4627.0**	**4257.8**	**1986.0**
Total Steel (Non-Alloy)	**4866.1**	**5557.8**	**5000.0**	**4918.8**	**2279.0**
Finished Steel					
Alloys					
Finished Steel	323.0	349.0	450.0	179.0	113.0
Semis	0.0	0.0	0.0	85.0	0.0
Total Steel (Alloy)	**323.0**	**349.0**	**450.0**	**264.0**	**113.0**
Total Finished Steel (Non-Alloy+Alloy)	4800.8	5241.5	5077.0	4436.8	2099.0
Total Steel (Non-Alloy+Alloy)	5189.1	5906.8	5450.0	5182.8	2392.0
PIG IRON	**440.1**	**706.7**	**560.0**	**350.0**	**227.0**
SPONGE IRON	**42.3**	**55.6**	**38.0**	**34.0**	**1.0**

** Provisional*

ANNEXURE -XI

AUDIT REPORT NO. CA 23 OF 2009-10 (COMPLIANCE AUDIT)

STEEL AUTHORITY OF INDIA LIMITED

Bokaro Steel Plant (BSL) of Steel Authority of India Limited had a turnover of Rs. 12037.57 crore during the year 2007-08. Invoices in respect of its product are prepared in invoicing section on the basis of data received from different departments/sections. The company computerised the invoicing system of BSL. The computer comprised a 'File Server System using Oracle9i' developed in house. It was seen that there were multiple data entries of the same source data as a result of which the preparation of invoices was delayed. It was also seen that the system lacked input controls and validation checks which affected the completeness, accuracy and integrity of the data. There were inadequate physical access controls, as well as environment controls which rendered the system and data unsafe against un-authorised access, as well as fire hazards.

AUDIT REPORT NO. CA 24 OF 2009-10

HINDUSTAN STEELWORKS CONSTRUCTION LIMITED

The Company failed in securing its financial interest and taking prompt and appropriate action for recovery of the advance from the sub-contractor which resulted in loss of Rs. 3.26 crore

Para 16.2.1

MSTC LIMITED

Payment of advance to an associate supplier without securing the financial interest of the Company resulted in loss of Rs. 4.17 crore.

Para 16.3.1

Selection of associate suppliers without assessing their ability and competency resulted to a loss of Rs. 2.48 crore.

Para 16.3.2

NMDC LIMITED

Due to non stipulation of clause in the agreements with the customers regarding due date for payment and levy of interest thereon, the Company suffered loss of Rs. 5.18 crore.

Para 16.4.1

The Company procured dumpers in excess of requirement resulting in loss of interest and incurring of maintenance charges amounting to Rs. 3.07 crore.

Para 16.4.2

RASHTRIYA ISPAT NIGAM LIMITED

Failure to implement the contractual provisions resulted in non-realisation of ground rent of Rs. 2.17 crore from private parties.

Para 16.5.1

STEEL AUTHORITY OF INDIA LIMITED

Defective penalty clause in MoU entered with BCCL and CCL for procurement of coal resulted in under levy of penalty amounting to Rs. 10.87 crore on coal with higher ash percentage during 2004-05 to 2006-07.

Para 16.6.1

Delay in taking decision to finalise to forward auction bid for sale of idle units for Fertilizer Plant at Rourkela resulted in loss of Rs. 1.90 crore.

Para 16.6.2

BHARAT REFRACTORIES LIMITED (now merged with SAIL)

Under/non recovery of charges for the electricity supplied by the Company to the employees of erstwhile BRL for domestic consumption resulted in Rs. 6.30 crore not recovered during the period from 2002-03 to 2007-08.

Para 16.1.1

ANNEXURE -XII

POSITION OF IMPLEMENTATION OF THE JUDEGEMENTS / ORDERS OF THE CENTRAL ADMINISTRATIVE TRIBUNAL

There are no judgements/orders of the Central Administrative Tribunal pending for implementation in respect of the Ministry of Steel and the public sector undertakings and companies under its administrative control.

ANNEXURE - XIII

COMPARATIVE PBT (PROFIT BEFORE TAX) PSUs/BIRD GROUP OF COMPANIES

(Rs. in crore)

Sl.No.	PSU/Company	2004-05	2005-06	2006-07	2007-08	2008-09	Apr-Dec 09*
A- Profit earning PSUs/Companies							
1	SAIL	9365.00	5706.00	9423.00	11468.73	9404.00	7065.00
2	RINL	2253.77	1889.51	2222.34	2995.36	2027.00	721.91
3	NMDC	1223.65	2770.13	3498.31	4947.47	6648.23	3642.64
4	MOIL	202.27	169.00	201.15	734.91	1006.76	424.09
5	MSTC	64.76	85.70	90.87	134.47	129.53	70.42
6	FSNL	8.49	8.55	3.05	2.01	4.31	3.95
7	SIIL	14.24	5.66	6.29	9.88	(-) 1.29	(-) 10.35
8	OMDC[$]	230.15	188.88	259.00	224.46	286.24	88.13
9	MECON	10.73	19.27	23.38	39.53	74.76	110.49
10	KIOCL	1111.91	548.10	19.94	156.51	24.18	(-) 184.87
11	BRL[#]	(-) 5.21	(-) 6.93	(-) 15.12	4.67	6.17	-
B. Loss making PSUs/Companies							
12	HSCL	(-) 94.21	(-) 85.50	(-) 83.50	(-) 26.72	(-) 6.88	(-) 42.48
13	BSLC[$]	(-) 5.00	(-) 64.13	(-) 6.65	(-) 81.61	(-) 91.38	2.41
14	KDCL[$]	(-) 1.35	(-) 1.63	(-) 2.21	(-) 2.56	(-) 2.56	(-) 0.22
15	SSL[$]	(-) 7.21	(-) 9.78	(-) 13.47	(-) 11.48	@	@
	Total	**14321.79**	**11222.36**	**15566.36**	**20595.63**	**19422.65**	**11891.12**

**Provisional, @ Company under liquidation # BRL was merged with SAIL during 2009.*

COMPARATIVE PAT (PROFIT AFTER TAX) PSUs/BIRD GROUP OF COMPANIES

(Rs. in crore)

Sl.No.	PSU/Company	2004-05	2005-06	2006-07	2007-08	2008-09	Apr-Dec 09*
A- Profit earning PSUs/Companies							
1	SAIL	6817.00	4013.00	6202.00	7536.78	6174.81	4669.47
2	RINL	2008.00	1252.00	1363.00	1943.00	1336	464.45
3	NMDC	755.44	1827.80	2320.21	3250.98	4372.38	2404.59
4	MOIL	126.90	114.52	134.21	479.82	663.79	279.94
5	MSTC	38.30	54.68	59.00	92.20	85.05	43.48
6	FSNL	5.41	5.68	1.26	0.73	2.23	2.61
7	SIIL	3.93	3.18	4.02	6.48	(-) 0.92	(-) 9.74
8	OMDC[$]	145.55	129.93	173.47	148.84	181.81	59.22
9	MECON	10.73	16.12	20.38	33.32	65.88	82.87
10	KIOCL	649.84	356.30	13.77	108.16	22.01	(-) 184.87
11	BRL#	(-) 5.21	(-) 7.07	(-) 15.31	(-) 4.43	5.99	-
B. Loss making PSUs/Companies							
12	BSLC[$]	(-) 55.00	(-) 64.12	(-) 66.65	(-) 81.61	(-) 91.38	2.41
13	HSCL	(-) 94.21	(-) 85.97	(-) 83.50	(-) 26.72	(-) 6.88	(-) 42.48
14	KDCL[$]	(-) 1.35	(-) 1.63	(-) 2.21	(-) 2.56	(-) 2.56	(-) 0.22
15	SSL[$]	(-) 7.21	(-) 9.78	(-) 13.47	(-) 11.48	@	@
	Total	**10389.12**	**7640.64**	**10110.18**	**13482.37**	**12763.17**	**7771.73**

**Provisional, @ company under liquidation # BRL was merged with SAIL during 2009.*

$ Orissa Mineral Development Company Limited (OMDC), Bisra Stone Lime Company Limited (BSLC), Karanpura Development Company Limited (KDCL), Scott & Saxby Limited (SSL) are constituents of the Bird Group of Companies under the administrative control of the Ministry of Steel

ANNEXURE - XIV

CONTRIBUTION MADE TO THE CENTRAL GOVERNMENT AND GOVERNMENT INSURANCE COMPANIES BY THE PSUs AND BIRD GROUP OF COMPANIES

(Rs. in crore)

Sl.No.	PSU/Company	2004-05	2005-06	2006-07	2007-08	2008-09	Apr-Dec 09*
1	SAIL	4917.00	7775.00	9886.00	11723.00	10374.00	5982.00
2	RINL	1012.91	1608.13	2143.97	2522.08	1920.74	1007.00
3	NMDC	629.34	1356.16	1695.47	1880.42	2959.78	2070.00
4	MOIL	86.88	75.87	79.04	265.17	368.47	162.25
5	MSTC	21.24	23.42	30.52	48.12	62.76	41.15
6	FSNL	3.23	3.03	5.45	7.73	5.33	5.81
7	SIIL	17.76	11.99	13.04	13.98	5.64	2.49
8	MECON	15.88	25.58	25.23	41.85	57.83	60.00
9	KIOCL	534.92	294.73	39.83	28.55	114.68	30.89
10	HSCL	0.29	0.76	0.73	0.35	49.57	29.39
11	BRL#	20.21	21.64	26.34	32.19	36.33	-
12	BGC	86.28	54.77	104.93	80.30	116.67	30.84
	Total	**7345.94**	**11251.08**	**14050.56**	**16643.74**	**16071.8**	**9421.82**

**Provisional # BRL was merged with SAIL during 2009.*

CONTRIBUTION MADE TO THE STATE GOVERNMENTS BY THE PSUs AND BIRD GROUP OF COMPANIES

(Rs. in crore)

Sl.No.	PSU/Company	2004-05	2005-06	2006-07	2007-08	2008-09	Apr - Dec 09*
1	SAIL	1212.00	1454.00	1834.00	1900.00	2021.00	1396.00
2	RINL	246.00	298.51	319.63	379.08	372.25	169.70
3	NMDC	94.52	151.86	206.35	239.78	239.68	204.66
4	MOIL	28.48	28.24	32.07	84.17	90.84	52.82
5	MSTC	NIL	NIL	NIL	NIL	NIL	NIL
6	FSNL	0.17	0.15	0.27	0.46	0.47	0.29
7	SIIL	0.46	0.43	1.14	2.07	1.32	1.31
8	MECON	0.57	0.95	0.41	0.16	0.61	0.70
9	KIOCL	29.37	31.15	11.62	9.21	6.10	0.70
10	HSCL	0.98	0.86	0.55	1.21	118.87	42.84
11	BRL#	2.37	2.73	3.15	2.97	3.47	-
12	BGC	16.91	13.18	15.40	10.07	13.23	7.64
	Total	**1631.83**	**1982.06**	**2424.59**	**2629.18**	**2867.84**	**1876.66**

**Provisional # BRL was merged with SAIL during 2009.*

ANNEXURE - XV

BUDGET AND EXPENDITURE ON CSR

(Rs. in lakh)

PSU	2004-05		2005-06		2006-07		2007-08		2008-09		Apr - Dec 2009*	
	Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp.	Budgeted	Exp.
SAIL	600	183.01	1300	850.71	2600	1978.29	10000	11961	11400	8303	8000	4043
RINL	0	0	0	0	692	116	3400	1372	3882	2283	1275	877
NMDC	0	1179	0	1355	7050	2466	8930	2721	12440	9884	8000	4703
MOIL	0	25	0	35	200	71.48	300	287	734	542	1100	46.47
KIOCL	310	310	175	175	136	136	200	205	216	212	150	173.11
MSTC	0	0	20	17	80	31	118	86	248	242	131.00	21.00
FSNL	2	2	2	2	2	2.35	6	10.84	10	10	2.00	1.60
MECON	14.43	6.36	14.86	7.66	18.22	10.41	20.96	27.41	35.92	40.26	140	45.50
BRL#	16	16	16	16	16	16	12	20	20	25	-	-
SIIL	0	0	0	0	0	0	0	3.32	5	1.07	0	0
HSCL	0	0	0	0	0	0	0	1.5	20	6.35	10	NIL
BGC	0	490.24	0	9.02	0	8.65	0	964.02	0	497.93	300	32.30
Total	942.43	1721.37	1527.86	2458.36	10744.22	4971.05	22991.97	16723.07	29010.92	22900.61	19108	9943

Exp. = Expenditure

** Provisional*

 # BRL was merged with SAIL during 2009.

ANNEXURE-XVI

ADOPTION OF 'SEVEN STEP MODEL FOR CITIZEN CENTRICITY- 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 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. 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)

The Citizen's Charter is a commitment of SAIL to raise the standard of public services, and is an endeavor to work with the citizens in a more collaborative manner.

The aim of bringing this charter is to enhance citizen satisfaction by delivering effective and efficient service and continuous improvement in its products and service delivery process.

Citizen may be understood as any stakeholder with significant impact and influence on the company ranging from customers, vendors, investors, employees, alliance partners, Government to society at large.

SAIL's Citizen Charter is being framed in three broad areas. First part outlines scope of the Charter and General Information about the company. Second part contains the information on management commitment to the citizens, details of company business and expectations from citizens, thereby making citizens better informed and empowering them to demand better products and services. In the last part, it describes Citizen's Service Delivery, by managing the key ingredients for good product and service delivery, and building its own capacity to continuously improve delivery through feedback mechanism.

RINL

As envisaged in Citizen's/Client's Charter, the employees' grievances/public grievances are broadly categorized as Procedural delays (PD), Service matters (SM), Misbehaviour of Staff and Others (MSO) and dealt with/redressed under the system of Public Grievance Redressal by the concerned in the organization. This mechanism is centrally monitored by a Senior Executive at the level of General Manager.

MOIL

Citizen's Charter has been formulated in MOIL. MOIL has taken steps for implementation of the Charter and the same has been uploaded on Company's website and also circulated amongst Heads of Departments and Mines of the company. MOIL has also displayed copy of the Citizen's Charter at prominent places in the organization, where the public visit.

MOIL has organised training programme/ workshop in Company's Training Centre for interaction, creating awareness and proper implementation of the Citizen's Charter. As the Citizen's Charter has been recently implemented in MOIL, no feedback has been received. The company will assess and evaluate the impact of implementation of the Citizen's Charter in due course and the same will be improved, as may be required.

MSTC

To emerge as a dominant B2B player in trading with particular emphasis on Steel industry, MSTC has also taken up steps to ensure full adoption and compliance with the Seven Step Citizen Centric Model. The vision, mission and corporate goals have been objectively laid down. To ensure better implementation, MSTC has actively propagated the usage of e-commerce for its business transactions and has developed an e-procurement portal. To meet the requirements and obligations of a large number of customers and buyers in a transparent and effective manner, MSTC has built up a database of registered customers which is continuously updated as a regular exercise. For addressing grievances, the company has made an exclusive portal integrated into the corporate website www. mstcindia.co.in to register and monitor the grievances online. The company is also regularly using the Centralized Grievance Redressal Mechanism System (CPGRMS) software. These measures provide for a prompt and effective redressal of grievances online.

HSCL

To emerge as a forerunner in infrastructure development activities, HSCL has also drawn up its Vision and Mission statements. It has identified the list of key clients and the services to be provided to them. To ensure adherence to the quality norms and time schedule specified by the clients for implementation of their projects, the company is in the process of evolving standards, building up capabilities to meet the set standards and has also put in place monitoring mechanisms to continuously evaluate the performance. The company is in the process of reviewing all the parameters to achieve full compliance with the steps outlined in the Seven Step Citizen Centric Model.

KIOCL

KIOCL has a well-defined grievance redressal mechanism. All public grievances received by the company are looked into promptly. Two Directors, one General Manager and one Deputy General Manager are designated as Directors of Grievances for redressal of the Public/Staff Grievances. The company is in the process of evolving the procedures and steps for fully complying with the Seven Step Citizen Centric Model.

BIRD GROUP OF COMPANIES (BGC)

The Seven Step Model for Citizen Centricity for making Citizen's Charter more effective is being implemented in the Bird Group of Companies.

Steel Distribution Network of SAIL and RINL across the country

*Figures denote number of dealers in each state

**Map not to scale

SAIL had 1963 District Dealers in 599 districts and RINL had 80 District Dealers as on 01.01.2010

MINISTRY OF STEEL

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