

## Chapter 4

# A PROFILE OF VISA KHAPATNAM STEEL PLANT

- 4.1 Steel Scenario
- 4.2 VSP Historical Perspective – The Turnaround
- 4.3 VMOC (Vision, Mission, Objectives and Core values)
- 4.4 Internal Structure Of VSP
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## 4.1 STEEL SCENARIO

### Global Steel Industry

The Global Economy has showed signs of recovery with Global Steel Capacity utilization ratio showing improvement at 75.1 % in Dec '09 (as compared to 58.1 % in Dec '08). The financial crisis in the previous year has affected many Nations. However, the Indian Economy showed tremendous resilience and withstood the global volatility by maintaining the GDP Growth relatively at a higher level as compared to the earlier period. The Indian steel industry has also shown signs of improvement everywhere by a positive growth of 2.7% over the previous year, while other developed countries showed a negative growth.

The consumption of Steel continues to be a major growth driver. The consumption growth projected at 7% based on GDP growth rate of 7% to 7.5% and production of 110 million tonnes much earlier than 2019 – 20 was projected as objectives in the National Steel Policy.

Global Crude Steel production reached 1220 million tonnes. Further, consolidation in the Industry has facilitated the growth and investor confidence. The international prices have been high in the year helping the companies in India for improving their margins. The World Steel Association forecasts an increase in the apparent use of Steel finished products during 2010 and 2011 by 10.7% and 5.3% respectively. World Steel Association also expects the apparent steel use for the year 2010 to reach 1.241 billion tonnes compared to

1.121 billion tonnes for 2009 and this is expected to rise to 1.306 billion tonnes in 2011. It is also predicted that Asia will lead in terms of Steel demand with a share of 66.2% of the World Steel demand in 2010 and 65.5% in 2011. Emerging economies like India will drive the growth and this augurs well for the industry.

### Indian Steel Scenario

Iron & Steel making as craft has been known to India for a long time. However its production started only after 1900. In a short span of 3 decades or so that capacity was increased from 11 folds to about 16 Million tonnes by nineties. Progress in next 15 years was slow, just more than double i.e. 34.821 million tonnes. China alone constitutes 25% of world steel production and consumption. China has doubled its steel output from 90mt in 2000 to 320mt in year 2005. In the first quarter of 2004 Indian steel export rose by 40% compared to last year. Presently India consumes 85% of its production in the domestic market and exports the rest.

India has emerged as 5th largest producer and recorded a growth rate of 2.7% and emerged as the largest sponge iron producer in the World. The Industry is looking forward for expansion plans of the steel companies including PSUs and if implemented on schedule, India could become the second largest crude steel producer in the world by the year 2016. The growth in infrastructure and other developmental activities arising out of increased outlays in these sectors by Government of India have rejuvenated the steel market in the country and the building of capacities to cater to the diversified demands is the main thrust area now onwards. For the purpose of comparing steel production in India and abroad, the following tables presented here.

#### 4.1.1 World top producers in steel 2010 (Million Tons)

Rank	Member company	Production	Rank	Member company	Production
1	ArcelorMittal	98.2	24	IMIDRO	11.4
2	Baosteel	37.0	25	Techint	8.8
3	POSCO	35.4	26	Metinvest	8.7
4	Nippon Steel	35.0	27	Kobe	7.6
5	JFE	31.1	28	CELSA	7.4
6	Jiangsu Shagang	23.2	29	voestalpine	7.3
7	Tata Steel	23.2	30	Usiminas	7.3
8	U. S. Steel	22.3	31	Erdemir	7.1
9	Ansteel	22.1	32	BlueScope	6.8
10	Gerdau	18.7	33	JSW	6.4
11	Nucor	18.3	34	Metalloinvest	6.1
12	Severstal	18.2	35	Essar	6.0
13	Wuhan	16.6	36	SSAB	5.8
14	ThyssenKrupp	16.4	37	CSN	5.5
15	Evrast	16.3	38	Salzgitter	5.2
16	Shougang	14.9	39	HKM	5.2
17	Riva	14.0	40	Hadeed	5.0
18	SAIL	13.6	41	Ezz	4.5
19	Sumitomo	13.3	42	Duferco	4.1
20	Hyundai	12.9	43	Nisshin	3.8
21	China Steel	12.7	44	AHMSA	3.7
22	NLMK	11.9	45	CMC	3.5
23	Magnitogorsk	11.4	46	Vizag Steel	3.2

#### 4.1.2 Indian Steel production

Steel Plant	2010-11	2009-10
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Bhilai Steel Plant	5329	5108
Durgapur Steel Plant	1961	1966
Rourkela Steel plant	2160	2128
Bokaro Steel Plant	3592	3599
Indian Iron&Steel Plant	411	400
Alloy Steel Plant	200	205
Vis. Iron&Steel	108	103
Total SAIL	13761	13509
Visakhapatnam Steel Plant	3235	3205

Tata Steel	6856	6563
Jindal Steel Works	5853	5257
ISPAT	2377	2689
ESSAR	3367	3474
Jindal Steel &Power Ltd.	2273	1961

Others	31853	29181
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Total	69575	65839
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## 4.2 VSP HISTORICAL PERSPECTIVE - THE TURN AROUND

*Rahtriya Ispat Nigam limited(RINL) is a corporate entity of Visakhapatnam Steel Plant(VSP).*

The Steel plant is located 26 KM south of Visakhapatnam city. The Company also has Blast Furnace grade Limestone captive mine at Jaggayyapeta, a captive mine for Dolomite at Madharam, a Manganese ore captive mine at Cheepurapalli. It also has a mining lease for river sand of river Champavathi.

Sri Tenneti Viswanatham, an outstanding poet, patriot, scholar and statesman, had led the all party agitation in 1966 demanding 5th integrated Steel plant for Andhra Pradesh at Visakhapatnam. Happiness alleviates all pain. This was the

experience when the then prime minister of India, Late Mrs. Indira Gandhi announced in the parliament on 17th April 07 government's decision to establish a Steel plant at Visakhapatnam. The activities kicked off by appointing site selection committee in June '70 and subsequently the

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1. Iron & Steel Review, Jan. 2011, Pg192-196

committee's report was approved for site. On 20th Jan 71 the then Prime minister of India has laid the foundation stone. Consultants were appointed in Feb 71 and feasibility reports were submitted in 1972. The first block of land was taken over on 7th April 74.

M/s M.N. Dastur & Co was appointed as the consultant for preparing the detailed Project report in April 75 and in Oct 77 they have submitted the report for 3.4 mtpa of liquid steel. With the Government of erstwhile USSR's offer for assistance, a revised project concept was evolved. DPR for a plant capacity of 3.4 mtpa was prepared by M/s M.N. Dastur & Co in Nov. 80. In Feb. 81 contract was signed with Soviet-Union for preparation of working drawings for Coke ovens, Blast Furnace and Sinter plant. The blast furnace foundation was laid with 1st mass concreting in the project in Jan 82. The construction of township also started.

A new company Rashtriya Ispat Nigam Limited (RINL) was formed on 18th Feb. 1982. VSP was separated from SAIL (Steel Authority of India Limited) and made a corporate entity of RINL in April 82.

In the roller coaster ride during the construction phase, due to continued fund constraints and delay resulting in high cost, it became imperative to go for a

rationalized concept during 1985, in which a plant capacity of 3Mtpa of liquid steel has been envisaged. The rationalized concept envisages not only working at international levels of efficiency, but also operating the plant with 30 to 35% of the manning of the Public sector plant of similar capacity operating in the country. The rationalized concept was approved by the Government of India in June 88.

The auxiliary units including structural shop were the first units to be commissioned in 1987. The year 1989 witnessed commissioning of many units. In Jan 89, coal handling system of RMHS (Raw Material Handling System) was commissioned and in March 89 Turbo Generator No. 1 was commissioned. Commissioning of metallurgical units started in Sep 89 with the commissioning of Coke oven battery No. 1. Sinter plant (Machine-1) was commissioned in Nov 89 and in Dec 89, Ore & Flux handling system -1 of RMHS was commissioned.

The first hot metal flowed from Godavari. The first Blast furnace (Godavari) was blown on 28th Mar 90. On 3rd May 90, the then Prime Minister dedicated 'Godavari' to the nation. The year 1990 is marked in the history of VSP with commissioning of major units. A few of them include Converter No.1 CCM and No. 3 of SMS in Sep 90, Billet production in LMMM, rolling of Wire Rods from 21 Nov 90 and commissioning of Turbo Generator no.3 in Dec 90. In the year 1991, CCM no. 1 & 4, Converter No. 2 of SMS/ Lime Calcining plant and Dolomite Calcining plant. Bar mill of LMMM, Coke oven battery No. 2 and Sinter machine No. 2 were also commissioned.

The year 1992 is a spectacular year for VSP. On 20th March, 92 Medium merchant and structural mill (MMSM) was commissioned and on 21st March

92 the second blast furnace (Krishna) was commissioned. Remaining units were also commissioned. Coke Oven battery No. 3 which was commissioned on 30th July 92 marks the completion of commissioning of all units of the 3 Million tonne plant. After the commissioning of all units, the production has been increasing in a linear manner.

VSP's Product Mix comprises Wire Rods, Bars, Angles, Channels/Beams, Rounds and Billets. The Plant also produces Pig Iron, Granulated Slag and Coal Chemicals. The rolled products find extensive usage in the Construction, Infrastructure, Railways, Power, Defense, Transport and Ship Building sectors. Coils and Rods are used mainly for reinforced concrete work for housing, construction of dams, buildings factories, manufacturing of agricultural implements and fabrication of light engineering components. The Wire rods are used in Wire Drawing industry for electrodes, transmission lines etc. The structurals find application in engineering, house building, agricultural implements machinery, transmission towers, etc.

The steel plant has many technological features, which are unique amongst the steel plants in the country. The production of TMT rebars by tempcore process is a shining example in this respect. The IT applications at RINL have been developed and implemented keeping the overall organizational business objectives in view. IT infrastructure has been upgraded recently with IBM-RS 6000 servers and ORACLE-91 as the data base server and data communication was strengthened with back bone fiber-optic network. In the area of marketing VPN based wide area network has been implemented to provide vital information to regional marketing offices as well as customers.

Human resource initiatives are closely linked to the corporate strategy of the organization. VSP has exemplary industrial relations. Here the entire work force works as a well knit team for the progress of the company. Participative management, by involving cross section of the employees, in development of the policies and strategy, is actively implemented in the company. The total workforce is 17000 plus. Employees are motivated by recognizing their commitment and dedication by various awards and rewards.

A large township was built for the employees with all the facilities and it is a unique township with greenery everywhere. Around 10000 dwelling units are constructed. Shopping complexes for every sector, Banks and ATMs, community welfare centers, places of worship, parks, clubs, sports complexes, gymnasiums, library, cultural centers and spiritual groups, schools & junior colleges and crèche are a part of this grand township. VSP township is a model in India with residents from varied cultural backgrounds living with unity. Horticulture and landscaping increased the beauty of the township.

Environmental protection is given prime concern and one plant per tonne or liquid steel are planted in VSP. As of now there are more than 3.5 million trees resulting in lowering of ambient temperature by 3<sup>0</sup> C when compared to city. Afforestation at RINL has been multi-faceted and multi-dimensional, aimed at restoring and conserving the ecological balance, beautifying the surroundings, fighting heat, dust and noise pollution. 41 % out of the total acquired area of 8,827 hectares i.e. 3600 hectares is earmarked for extensive afforestation. The afforestation programme has earned recognition from various quarters and VSP was awarded the prestigious Indira Priyadarshini Vrikshamitra award as early as in 1994. The green plants everywhere mesmerizes visitors and a visit to the plant and township is cherished for a long time.

***Health of VSP family is wealth of VSP*** and the company runs a 160 bed general hospital with 4 health centers, providing free medical aid to the employees. The general hospital is a modern multi-specialty hospital with more than 90 doctors and around 300 supporting staff. VSP is surrounded by four rehabilitation (RH) colonies and 18 villages. The needs of the people, living in surrounding areas are ascertained through regular interactions with them. Literacy drive, health care, vocational training, self-employment and provision of basic amenities to the surrounding villages are some of the activities related to peripheral development. Two villages i.e. Dibbapalem and Devada have been developed as model villages.

RINL/s commissioning of 2nd phase in 1992 coincided with the introduction of new economic policy initiatives in the country. The liberalization of the Indian economy brought visible changes in the Indian steel industry. Buoyant growth in the initial years was witnessed. Many private sector steel plants came up and production and domestic consumption improved considerably. However, from the middle of 1997, developments on the international front, like economic crisis in the South East Asian countries and Japan, had an adverse impact on the steel industry world-wide. This situation snowballed into a prolonged recession, one of the worst of its kind. India was affected with this recession and suffered a setback in steel exports. The slowdown in Indian economy resulted in less investment in infrastructure and thereby reduction of steel consumption. Coupled with above factors, were the increase in project cost and the stabilisation problems of Coke oven battery which resulted in financial setbacks. VSP was in a grip of fear to be reported to BIFR. When the entire globe witnessed the rolling of a new millennium with jubilation, VSP welcomed with

uncertainty and hope. On one side the production figures were reaching rated capacities and on the other side there was the threat of getting reported to BIFR.

***There is no better teacher than adversity.*** Every defeat, every heartbreak, every loss, contains its own seed, its own lesson on how to improve your performance the next time. Patience and perseverance have a magical effect before which difficulties disappear and obstacles vanish. This was what exactly how VSP successfully met the challenges of teething problems of stabilization, liberalisation of Indian economy and upheavals in the steel Industry. Through perseverance VSP could register a steady growth even when the steel Industry was reeling under recession.

***The future belongs to those who believe in the beauty of their dreams.*** The dream of VSP was realized in the year 2002-03, the most significant achievement of the company has been attaining financial turnaround. This year saw VSP surpassing well above the rated capacities in almost all the areas and become fourth consecutive year to register more than 100% fulfillment with respect to MOU targets. This year the MOU ratings are excellent. Labour productivity in the year 2002-03 has been as high as 256 tonne of crude steel per man year. During 2002-03 the steel market is buoyant and this trend is continuing this year also. Boost in the construction and infrastructure sector propelled domestic steel consumption.

Net profit of Rs. 521 Crore was achieved during the year 2002-03

***If you can imagine it, you can create it. If you can dream it, you can make it.***

The end of Sep 03, saw a debt free VSP.

*Success depends above all, upon people.* What we believed are ‘build relationships, teams, partnerships and motivate people to contribute. Cultivate leadership, creativity & excellence. Listen, seek new ideas and advice’.

This was the approach of the efficient top management of VSP which has helped in turnaround of the company. At one time the pay revision looked remote but in the year 2003. Pay arrears for a period of two years were also paid to its employees.

VSP won many accolades and won the prestigious silver trophy for turnaround category from SCOPE (Standing Committee on Public Enterprises) for the year 2000-01, National Energy conservation Award-2002, Green Tech Environment Excellence award-Silver award in steel sector are a few to name among many.

***Quality holds the key to pride, productivity and profitability.*** The economics of recent times has spawned the need to have the right resources to improve quality and reduce costs and at VSP, quality is the responsibility of one and all. It is a matter of pride that VSP is the only integrated steel plant in the country to be certified for ISO 9001-2000, ISO-14001: 2004 and OSHAS 18001:1999.

***The purpose of a business is to create and retain customers.*** Profit in business comes from repeat customers, customers that boast about your product or service, and that bring friends with them. VSP builds relationship with external partners on the basis of trust and information sharing. RINL has developed key partners and strategic relationship with vendors, customers and the agencies associated with our operations. Unmatched quality and superlative performance have made VSP the first choice of customers who demand only the best.

Whenever an individual or a business decides that success has been attained, progress stops. ***A learning organisation is an organisation that has an enhanced capacity to learn, adapt, and change.*** VSP is a learning organisation in which learning processes are analyzed, monitored, developed, managed, and aligned with improvement and innovation goals. Its vision, strategy, leaders, values, structures, systems, processes, and practices all work to foster people in learning and development and to accelerate the performance of the company. Having established itself as a major player, Visakhapatnam Steel Plant has drawn out strategic plans for the future with a view to sustain and to improve its market share and expand the customer base.

***Do not measure one by what one has accomplished, but by what one should have accomplished with one's ability.*** Having surpassed its rated capacities at all stages of production, VSP's corporate plan include phase-wise expansion of the plant to 10 million tonnes. The Government of India sanctioned the Coke oven battery No.4 and VSP is geared up for the construction of Battery No.4. The salient features of the corporate expansion plan include installation of compact strip caster and setting up of cold rolling mills for producing high value products. In the long term a blend of long and flat products has been envisaged to gain competitive edge in the market. With all its inherent and proven strengths in terms of modern facilities and latest technology, passion for quality, lean manpower and the spirit to excel VSP shall forge ahead to conquer new horizons.

RINL became Miniratna (Category-I) in 2006 and soon thereafter qualified for 'Navratna' status since 2007. On successful efforts, the steel plant is conferred with Navratna on 16<sup>th</sup> Nov. 2010.

Success is not a destination that you ever reach. Success is the quality of your journey and the journey of VSP continues.

*Key Audited Financials (Rs. Crores)*

	<u>2009-10</u>	<u>2008-09</u>
Gross Turnover	10635	10411
Total Income	10567	10052
Total Expenditure	8964	7697
Gross Margin	1603	2355
Interest Charges	78	88
Cash Profit	1525	2267
Depreciation	277	240
Profit Before Tax	1248	2027
Provision for taxations	451	691
Net Profit	797	1336

*Dividend for the year 2009-10*

The Net Profit for the financial year 2009-10 has eroded by 40% as compared to that of the previous year due to lower net sales realization. Considering the financial position of the Company and the need to have adequate internal resources for the ongoing Expansion Project and to support modernization and key raw material securitisation plans, there is a requirement to conserve funds.

It is a great pleasure to announce that the Board of Directors of the Company have since recommended a total dividend of 10% of Profit After Tax (PAT) to Equity Shareholders (amounting to Rs. 79.67crores) and 7% on Preference Share Capital to Preference Shareholders (amounting to Rs. 205.62crores) including the interim dividend of Rs. 100.01crores already paid to Equity and

Preference Shareholders for the financial year 2009-10 and the Shareholders, at the 28th AGM of the Company held on 24th July, 2010, have declared the dividend for the year 2009-10 accordingly.

#### 4.3 (VMOC) VISSION, MISSION, OBJECTIVES & CORE VALUES

##### *Vision*

To be a continuously growing world class company, we shall

- Harness our growth potential and sustain profitable growth
- Deliver high quality and cost competitive products and be the first choice of customers.
- Create an inspiring work environment to unleash the creative energy of people
- Achieve excellence in enterprise management
- Be a respected corporate citizen, ensure clean and green environment and develop vibrant communities around us.

##### *Mission*

To attain 16 million ton liquid steel capacity through technological up-gradation, operational efficiency and expansion; to produce steel at international standards of cost and quality; and to meet the aspirations of the stakeholders.

##### *Objectives:*

- *Towards growth-* Expand the plant capacity to 7 Mt by 2010-12 and 10 Mt by 2019-20.

- *Towards profitability*- Achieve net profits from 2002-03 onwards with special emphasis on enhancement of production of value added steels and cost reduction.
- *Towards employees*-Make RINL the employer of choice. Upgrade the skills and efficiency of employees through training and development and maintain high levels of motivation and satisfaction.
- *Towards customers*- Promote branding of products for quality and customer preference through effective customer relations management.
- *Towards suppliers*- Develop a reliable and strong supplier base and ensure effective supply chain.
- *Towards quality* -Promote quality movement in all functions of the company through quality management system.
- *Towards technology*- up-gradation and productivity - Continuously upgrade technology and practice benchmarking to achieve international efficiency levels. Adopt latest developments in information and communication technology.
- *Towards knowledge management* - Become a knowledge based and a knowledge sharing company.
- *Towards safety, environment, and society* - Continue efforts towards safety of employees, conservation of environment and be a good corporate citizen.

### *Core Values*

With a view to running the business in a transparent manner meeting the needs and expectations of the stake holders, it was felt desirable to give utmost importance to the value system in the company. Accordingly RINL has finalized core values, which are brought out below.

### *Commitment*

*Customer Satisfaction*  
*Continuous Development*  
*Concern for Environment*  
*Creativity & Innovation*

#### 4.4 INTERNAL STRUCTURE OF VSP

##### Organisation Hierarchy :

##### *Board Of RINL*

##### Functional Directors

Sri A.P. Choudhary, Chairman – cum – Managing Director

Sri Y. R Reddy, Director (Personnel)

Sri T.K. Chand, Director (Commercial)

Sri P. Madhusudan, Director (Finance)

Sri Umesh Chandra, Director (Operations)

##### Government Directors

Sri S. Machendranathan, AS&FA, MOS/GOI

Dr. Dalip Singh, JS(Steel), MOS/GOI

##### Independent Directors

Dr. U. D. Choubey

Sri H. S. Chahar

Sri Swashpawan Singh

Sri A. P. V. N. Sharma

##### *Executives*

E9 Executive Director

E8 General Manager

E7 Deputy General Manager  
E6 Assistant General Manager  
E5 Senior Manager  
E4 Manager  
E3 Deputy Manager  
E2 Assistant Manager  
E1 Junior Manager  
AE Assistant Executive (non - unionised supervisor)  
JO Junior Officer (non - unionised supervisor)

*Non Executives*

Cluster C

S10 Senior Foreman  
S9 Foremen  
S8 Foreman  
S7 Senior Chargeman  
S6 Chargeman

Cluster B

S9 Senior Chargeman  
S8 Senior Chargeman  
S7 Chargeman  
S6 Chargeman  
S5 Master Technician  
S4 Senior Technician  
S3 Technician

Cluster A



	56,	60,	63,	65,	71,	75 mm	
	77,	80				mm	
Equal Angles			50	x	50	x	5/6 mm
			60	x	60	x	6 mm
			65	x	65	x	6 mm
			75	x	75	x	6/8 mm
			90	x	90	x	6/8 mm
			100	x	100	x	8/10 mm
			110	x	110	x	8/10 mm
Channels			MC		40	x	32 mm
			MC		75	x	40 mm
			MC		100	x	50 mm
			MC		125	x	65 mm
			MC		150	x	75 mm

By Products

Fertiliser	'Pushkala' brand
	Ammonium Sulphate
Coke Fractions	Nut Coke
	Coke Dust
Coal Chemicals & Tar Products	Coal Tar Pitch
	Anthracene Oil
	HP Napthlene
	Pitch Creosote Mixture
	Coal Tar Wash Oil
	Phenol Fractions
Benzol Products	Caprolactum Grade Benzene

Miscellaneous Products

NG Toluene / IG Toluene  
Light Solvent Naptha  
Granulate BF Slag  
Calcined Lime Fines  
Fly Ash  
Liquid Argon  
Liquid Oxygen  
Liquid Nitrogen  
Boiler Coal Dust  
SMS Slag

DEPARTMENTAL DIVISIONS IN VSP

*Directorate of Personnel :*

- ED(HRM) Office
- Personnel and Administration
- Management services
- Medical and Health Services
- Training and HRD

*Directorate of Finance :*

- General Finance, Works finance & Administration
- Central exercise, Sales tax & Insurance
- Internal Audit & Stock verification
- Marketing finance, Exports & Branch sales
- Raw materials, Mines, Budget & Corporate accounts
- Operations, Works accounts & General accounts
- Purchase bills, Purchase finance & Stores

*Directorate of Commercial :*

- Marketing
- Materials management
  1. Ancillary Development
  2. Central Stores
  3. Purchase
  4. Transport & Shipping

*Directorate of Projects :*

- Construction
- Design and Engineering

*Directorate of Operations :*

- Corporate Planning
- Mines
- Information Technology
- Works Division
  1. Air Conditioning Systems
  2. Blast Furnace
  3. Calcining & Refractory Materials Plant
  4. Civil, Structural and Contracts
  5. Coke oven & Coal chemicals plant
  6. Cost Control Cell
  7. Distribution Networks
  8. Electro – Technical Laboratory
  9. Energy Management Department
  10. Engineering shops & Foundry
  11. Environment Management Department

12. Instrumentation
13. Production Planning & Monitoring
14. Quality Assurance & Tech. Development
15. Raw Materials Handling Plant
16. Refractory Engineering Department
17. Rolling Mills (LMMM, MMSM, WRM, RSRS)
18. Safety Engineering Department
19. Sinter Plant
20. Scrap & Salvage Department
21. Steel Melting Shop
22. Technical Improvement Cell
23. Telecommunications
24. Thermal Power Plant
25. Traffic Department
26. TQM & ISO Cell
27. Utilities
28. Water Management Department
29. Maintenance Mechanical
  - Central Maintenance Mechanical
  - Field Machinery Department
  - Lubrication & Hydraulics
  - Maintenance Management Systems
  - Plant Design
  - Power Engineering Department
  - Spares Management Department
  - Technical Services
30. Maintenance Electrical
  - Central Maintenance Electrical

- Electrical Repair shop

## 4.5 DESCRIPTION OF DEPARTMENTS

### PRODUCTION DEPARTMENTS

The main production plants are

#### Coke ovens & Coal Chemical Plant (CO&CCP) :

Blast Furnaces, the mother units of any Steel plant require huge quantities of strong, hard and porous solid fuel in the form of hard metallurgical coke for supplying necessary heat for carrying out the reduction and refining reactions besides acting as a reducing agent.

Coke is manufactured by heating of crushed coking coal (below 3 mm) in absence of air at temperature of  $1000^{\circ}\text{C}$  and above for about 16 to 18 hours. A Coke Oven comprises of two hollow chambers namely coal chamber and Heating Chamber. In the heating chamber a gaseous fuel such as Blast Furnace Gas, Coke Oven Gas etc. is burnt. The heat so generated is conducted through the common wall to heat & carbonize the Coking Coal placed in the adjacent coal chamber.

Number of ovens built in series one after the other form a Coke Oven Battery.

At VSP there are three Coke Oven Batteries, 7 Meter tall and having 67 Ovens each. Each oven is having a volume of 41.6 cu.meter & can hold up to 31.6 Tons of dry coal charge. The Carbonization takes place at  $1000 - 1050^{\circ}\text{C}$  in absence of air for 16-18 hours.

Red Hot Coke is pushed out of the oven and sent to Coke Dry Cooling Plants for cooling to avoid its combustion. There are 3 Coke Dry Cooling Plants (CDCP) each having 4 cooling chambers. The capacity of each cooling chamber is 50-52 TPH. Nitrogen gas is used as the Cooling medium. The heat recovery from nitrogen is done by generating steam and expanding in two back pressure turbines to produce 7.5MW power each.

The Coal chemicals such as Benzole (& its products), Tar (& its products), Ammonium Sulphate etc. are extracted in Coal Chemical Plant from C.O. Gas. After recovering the Coal chemicals the gas is used as a by product fuel by mixing it with gases such as BF Gas, LD Gas etc. A mechanical, biological & chemical treatment plant takes care of the effluents.

#### Blast Furnaces (BF) :

Hot Metal is produced in Blast Furnaces, which are tall vertical furnaces. The furnace is named as Blast Furnace as it is run with blast at high pressure & temperature. Raw Materials such as sinter/ Iron Ore Lumps, Fluxes (Limestone/Dolomite) and Coke are charged from the top and hot blast at 1100<sup>0</sup>C and 5.75 KG pressure is blown almost from the bottom. The furnaces are designed for 80% Sinter in the burden.

VSP has two 3200 cu. meter Blast Furnaces (largest in India) equipped with Paulworth Bell less top equipment with conveyor charging. Rightly named as "Godavari" & "Krishna" after the two rivers of AP, the furnaces will help VSP in bringing prosperity to the state of Andhra Pradesh.

Provision exists for granulation of 100% liquid slag at blast furnace cast house and utilization of blast furnace gas top pressure (1.5-2.0 atmospheric pressure) to generate 12 MW of power in each furnace by employing gas expansion turbines.

The two furnaces with their novel circular cast house and four tap holes each are capable of producing 9720 tons of Hot Metal daily or 3.4 Million Tons of low sulphur Hot Metal annually.

#### Steel Melting Shop (SMS) :

Steel is an alloy of Iron with carbon up to 1.8%. Hot Metal produced in Blast Furnaces contains impurities such as Carbon (3.5-4.25%) Silicon (0.4 - 0.5%), Manganese (0.3-0.4%), Sulphur (0.04% max) and Phosphorous (0.14% max) is not suitable as a common Engineering Material. To improve the quality the impurities are to be eliminated or decreased by oxidation process.

VSP produces steel employing three numbers of top blown Oxygen Convertors called LD Convertors (L & D stand for Linz & Donawitz - two towns in Austria where this process was first adopted) or Basic Oxygen Furnaces / Convertors. Each convertor is having 133 cu.meter volume capable of producing 3 Million Tons of Liquid Steel annually. Besides Hot Metal, Steel Scrap, Fluxes such as calcined lime or Dolomite form part of the charge to the Convertors.

99.5 % pure Oxygen at 15-16 KG pressure is blown in the Convertor through oxygen lance having convergent Divergent copper nozzles at the blowing end. Oxygen oxidises the impurities present in the Hot metal, which are fixed as slag

with basic fluxes such as lime. During the process heat is generated by exothermic reactions of oxidation of metalloids viz. Si, Mn, P and Carbon and temperature rises to 1700<sup>0</sup> C enabling refining & slag formation.

Different grades of steel of Superior quality can be made by this process by controlling the Oxygen blow or addition of various ferro alloys or special additives such as Fesi, FeMn, SiMn, Coke Breeze, Aluminum etc. in required quantities while liquid steel is being tapped from the convertor into a steel ladle. Convertor/LD Gas produced as by product is used as a secondary fuel.

#### Continuous casting Department (CCD) :

Continuous casting may be defined as teaming of liquid steel in a mould with a false bottom through which partially solidified ingot/bar (Similar to the shape & cross section of the mould) is continuously withdrawn at the same rate at which liquid steel is teamed in the mould.

Facilities at a continuous casting machine include a lift and Turn table for ladles, Copper mould, oscillating system tundish, Primary & Secondary Cooling arrangement to cool the steel bloom and gas cutting machines for cutting the blooms in required lengths (Av. 6 meters long).

At VSP we have six-4 strand continuous casting machines capable of producing 2.82 Million Tons/year Blooms of size 250 x 250 mm and 250 x 320 mm. Entire quantity of molten steel produced (100%) is continuously cast in radial bloom casters which help in energy conservation as well as production of superior quality products.

#### Rolling Mills :

Blooms produced in SMS-CCD do not find much applications as such and are required to be shaped into products such as Billets, rounds, squares, angles (equal & unequal), Channels, I-PE Beams, HE Beams, Wire rods and reinforcements bars by rolling them in, three sophisticated high capacity, high speed, fully automated rolling mills, namely Light & Medium Merchant Mills (LMMM), Wire Rod Mill (WRM) and Medium Merchant and Structural Mill (MMSM).

#### Light & Medium Merchant Mill (LMMM) :

LMMM comprises of two units. In the Billet/Break down mill 250 x 320 mm size blooms are rolled into Billets of 125 x 125 mm size after heating them in two nos. of Walking beam Furnaces of 200 Tons/hr capacity each. This unit comprises of 7 stands (2 horizontal 850 x 1200 mm) and 5 alternating vertical & horizontal stands (730 x 1000 mm & 630 x 1000 mm) Billets are supplied from this mill to Bar Mill of LMMM & Wire Rod Mill.

The billets for rolling in bar mill of LMMM are first heated in 2 strand roller hearth furnace of 200 T/h capacity to temperature of 1150<sup>0</sup> C-1200<sup>0</sup> C. The bar mill comprises of 26 stands – 8 stand double stand roughing train, 2 nos. of 5 stands, double strand intermediate train & two no.s 4 stand single strand finishing trains.

The mill is facilitated with temp core heat treatment technology evaporative cooling system in walking beam furnaces, automated piling & bundling facilities, high degree of automation and computerization.

The mill is designed to produce 710,000 tons per annum of various finished products such as rounds, rebars, squares, flats, angles, and channels besides billets for sale.

#### Wire Rod Mill (WRM) :

Wire Rod Mill is a 4 strand, 25 stands fully automated & sophisticated mill. The mill has a four zone combination type reheating furnace (walking beam cum walking hearth) of 200TPH capacity for heating the billets received from billet mill of LMMM to rolling temperature of 1200<sup>0</sup>C.

The heated billets are rolled in 4 strand. No twist continuous mill having a capacity of 8,50,000 tons of Wire Rod coils and having the following configuration.

- 7 stand two high 4 strand horizontal roughing train.
- 6 stand two high 4 strand horizontal Intermediate Mills.
- 2 stand 4 strand pre finishing Mill.
- 10 stand 4, strand. No twist finishing mill.

The mill produces rounds in 5.5 - 12 mm range and rebars in 8-12 mm range.

The mill is equipped with standard and retarded stelmore lines for producing high quality Wire rods in Low, Medium & High carbon grade meeting the stringent National & International standards viz. BIS, DIN, JIS, BS etc. and having high ductility, uniform grain size, excellent surface finish.

#### Medium Merchant & Structural Mill (MMSM) :

This mill is a high capacity continuous mill consisting of 20 stands arranged in 3 trains.

\_ Roughing train having a 8 stands (4 two high horizontal stands, 2 vertical stands and 2 combination stands)

\_ Intermediate Train has 6 mill stands as per details given below.

- 2 high horizontal stands

- 2 combination stands

- 2 horizontal stands / two universal stands

\_ Finishing Train - consists of 6 stands namely

- 2 combination stands

- 4 horizontal stands / 4 universal stands

The feed material to the mill is 250 x 250 mm size blooms, which is heated to rolling temperatures of 1200<sup>0</sup>C in two walking beam furnaces. The mill is designed to produce 8,50,000 tons per annum of various products such as rounds, squares, flats, angles (equal & unequal), T bars, channels, IPE beams / HE beams (Universal beams).

### Personnel Department :

#### *Introduction*

One of the primary objectives of the Companies is to develop a well-knit personnel policy and a comprehensive personnel programme that will be result-oriented and to develop an organizational culture which motivates employees to contribute their best towards the achievement of organizational objectives. In accordance with this objective, VSP has given considerable emphasis on development of human resources, as well as formulation and implementation of progressive personnel policies, systems, rules and procedures with an objective to synchronise organizational needs with individual aspirations, Since

inception, VSP has laid emphasis on effective man management as it subscribes to the belief that effectiveness and success of the organization depend largely on the skills and commitment of the people.

The rigorous and systematic approach to recruitment - from fresh candidates their upwards training, promotions and rewards have all helped to meet the aspirational needs of the individual and thereby the goals of the organization.

VSP has developed a comprehensive scheme of career planning and managerial succession. The size of the organization has necessitated the development of a computer based Personnel Inventory system. In the field of industrial relations, VSP encourages a participative approach. A career with VSP will mark the beginning a quest for advancement. VSP is a fast expanding organization and provides ample opportunities to bright youngsters to rise in the organizational hierarchy.

Looking into the rapid growth of the organisation and the multifarious specialized function, there exists opportunities for a rapid career growth in the area where aptitude lies.

### *Human Resource Management*

Human Resources are treated as the most important of all resources in the Company. Its development and welfare have therefore been given the utmost emphasis in the overall policy of Human Resources Management of the Company. It is believed that people are the key to success and the performance of the Company depends on them to a great extent. Hence special attention is given towards people management. For this, the organisation has developed the

Human Resources Policy to achieve the plans and targets of the Company. It enables individuals to work efficiently and take pride in their work besides feeling important. It makes people feel safe, secure and trusted. People in the organisation are encouraged for their efforts through a system of rewards and recognition. Its environment encourages team working, creativity and inventiveness. In the organization, the people's ownership for the work and responsibility is obtained through empowerment. Employees are one of the main components.

### *Productive Work Culture*

Establishing and sustaining a productive work culture has been considered of crucial importance in VSP. Several initiatives have been taken towards this end. VSP had adopted a multi-skill and multi-trade pattern of working with emphasis on flexibility in job deployment, thus ensuring optimum utilisation of its human resources. Productive work culture has been ensured by well-planned and timely stress on attitudinal change and positive work ethics through tailor-made human resources development programmes.

### *Industrial Relations*

VSP, by following a strategy of education and persuasion of the employees and with the firm handling of indiscipline has been able to establish by and large a cordial industrial relations climate. This has seen concerted efforts for a fuller utilisation of manpower, stabilisation of multi-discipline approach to work, elimination of restrictive and wasteful work practices and inculcation of strict discipline in the organisation, a constructive industrial relations climate has been evolved through a conscious policy of combining firmness with fairness.

### *Participative Management*

To sustain the spirit of the participative culture, a total of 66 Participative Committees are being functioning with equal participation both from the Management and the workers. Approximately 15% employees are given an opportunity of participation in these forms at VSP including the Quality Circles and Suggestion Schemes, Grievance Redressal System, Value Engineering etc. These have helped the organization in accomplishing the organizational goals through the active employee's participation/involvement. VSP bagged Best Management Award for the year 2000- 2001 from the State Government of Andhra Pradesh for outstanding contribution in maintenance of Industrial Relations, Labour Welfare and Productivity.

### *Employees Welfare*

With a view to develop an attitude in the minds of employees that the Company cares to its employees, various Statutory and Non-Statutory welfare measures have been provided by the company for the benefit of employees and their families.

### Marketing Department:

The Marketing Department in VIZAG STEEL sustained the cyclic market conditions during the last decade and adopted the best Marketing practices over the world under the dynamic leadership of its Management. The growth in sales in leaps and bounds in Marketing Department has been achieved in volatile, dynamic and highly competitive business environment. The structure of the Department, its operations in Domestic as well as International Markets, the

quality of operations and services to the customers, Marketing techniques adopted for image building are no less than the best in the class. VIZAG STEEL has emerged as the single largest long product producer.

The Marketing Department started its operations with Customer as its focus and with customer-friendly policies, since beginning. The 24 branch offices and stock yards in various states are catering to the needs of the customers in various segments. To have close coordination and instantaneous decision making, these branches are attached to 5 Regional Offices. A total of 295 young, dynamic, and enterprising persons are working in Marketing Department which enabled us to achieve a productivity of more than 11,191 tons steel sales/man year.

With the effective use of computerization, more than 450 varieties of items from the manufacturing range of around 3500 varieties are distributed in various stockyards and customers to make available the right product at the right time. This has enabled our customers a lower inventory carrying cost. All the Marketing Operations at Head quarters like planning & dispatches, pricing, distribution, transportation and Management Information Systems etc are computerized and integrated.

For effective material handling at stockyards, Consignment Agents/Handling Agents are appointed on Long term contract basis and are our Business Partners. With our regular interactions, we could develop various grades of special steel products for marketing to actual end-use segments. We have developed almost all types of special steels like, En series, High Carbon, EQ, Chromium Steels etc and are also developing Boron steel for special applications.

The regulatory requirements like Excise duty payment, Education Cess payments, VAT etc are made on time to the satisfaction of respective Government agencies. All the payments to our partners, contractors and their work men are made as per the norms of the Government. All the marketing operations and business decisions are made keeping in view the Customer. To encourage actual user customers, thrust is given to supply the right grade of material at right time. Sale to actual users constitutes around 60% of overall sales in the domestic market. Marketing Department is also fulfilling the social obligations being a part of high profiled PSU. Due to various efforts put in by our field personnel in customer service, over all customer satisfaction index improved over the years.

Marketing Department of Vizag steel with all its modern and innovative marketing tools is functioning at world class levels. This is evident from export of our products in more than 25 countries enabling us to be a global player in steel marketing. In order to give thrust to customer service activities and Customer Satisfaction, a central CRM Cell has been constituted at Head Quarters, Marketing along with CRM cell in each Region and Branch. The very first initiatives taken by CRM cell has to adopt a well defined Customer Policy which places emphasis on customer focus, transparency and addressing customers' expectations pertaining to product quality, value for money proposition and satisfaction. Some of the CRM initiatives like System of obtaining regular customer feedback, yearly calendar for Customer Meets/Customer Visits, Customer service Norms, On-line Customer Quality Complaint Settlement, On-line replies to Customer queries, Customer Grievance Redressal, standardized printed Catalogues and Brochures etc have been implemented.

## Finance And Accounts Department :

The function encompasses broadly, Finance, Accounting, MIS, Audit and taxation areas. Function covers the areas of raising of Finances viz., Capital, loans, working capital and servicing thereof. Finance also covers areas of controls viz., Budgetary Control and Cost Control.

Accounting deals with recording of daily transactions, compilation of Annual Accounts and their audit by various agencies, viz., Statutory Auditors appointed under the companies Act, Audit by Comptroller & Auditor General of India incase of Government Companies, Internal Audit and special Audits. Taxation includes tax planning and complying with provisions of various tax laws such as sales Tax, Central Excise, Income Tax Act, Wealth Tax Act, Service Tax etc.

Accordingly, the costing system in VSP is based on process costing. Similarly, Budgeting is done department wise. Various products manufactured by VSP are sold through its all India Branch network. For this purpose, materials are moved from the plant to various branches. Finance is also associated in finalisation of export orders, facilitating shipment of goods, complying with the various formalities, negotiation of documents and realisation of money.

F&A Department facilitates the Audit of the Comptroller and Auditor General of India. It also facilitates filing of the return of Income Tax under the Income Tax Act, Tax Deduction at source from the payments to the contractors, salaries to employees, remittance of Wealth Tax and filing of Wealth Tax return, remittance of periodical Sales Tax on the sales, submission of monthly return, completion of Annual assessments, remittance of Excise Duty while clearing the material, filing the monthly Returns under the Central Excise Rules,

remittance of various salary deductions to the respective agencies, viz., family pension scheme, LIC, Income Tax, etc.

Working Capital is taken care by the cash section of F&A Department. This section keep liaison with commercial Banks and arranges for working capital in the form of cash credit, Letters of Credit and Bank guarantees for procurement of input materials. F&A department has a separate Internal Audit wing for audit of the affairs of the 21 Branches spread all over the country apart from HQ dealing with material procurement, marketing and production.

#### Projects Division :

Projects Division of VSP consists of the following departments

- a) Design & Engineering Department
- b) Contracts Department
- c) Construction Department
- d) Project monitoring

Major activities of various departments are indicated against each of them.

#### *Design & Engg. Department :*

Design and engineering department activities are broadly categorized into the following :

- \* Project reports & approvals
- \* Conceptual planning & Basic Engineering
- \* Detailed Engineering
- \* Design Supervision
- \* Supervision of testing & commissioning
- \* Obtaining approvals & Liaison with Statutory bodies
- \* Preparation of cost estimates & monitoring project cost

- \* Indexing, storage & retrieval of technical documents

*Contracts Department :*

Major activities are broadly categories as

- \* Preparation of Special conditions of contract (SCC), General conditions of contract (GCC), payment terms of contract.
- \* Issue notice inviting tenders (NIT)
- \* Formulate prequalification criteria (PQC)
- \* Scrutinize tender requisitions for PQC.
- \* Enlistment of contractors
- \* Preparation & Issue of tender documents to tenderers
- \* Scrutiny & evaluation of commercial offers
- \* Preparation of contract documents
- \* Handling arbitration cases

*Construction Department :*

The construction department supervises the work carried out by various contractors, ensures that best work practices are adopted and the project is built in time. Construction department's activities are broadly categorised into the following

- \* Contract Management
- \* Construction supervision to ensure quality
- \* Accounting of materials & processing bills of contractors
- \* Processing gate passes, work permits, shut downs, etc.
- \* Monitoring and reporting of progress of work
- \* Implementing statutory obligations
- \* Ensure adherence to safety practices

*Project Monitoring :*

Preparation of timely feed back information to Management on progress, delays and critical activities of project AMR schemes.

Preparation of the following progress reports to management regularly

- \* Status of specifications / engineering / tendering / ordering / approval of vendor drawings.
- \* Status of civil / structural / equipment erection with reference to total quantities
- \* Status of construction activities / erection / testing & commissioning
- \* Furnish periodical reports on actual expenditure with respect to estimates.
- \* Interpretation of bar- charts to Management.
- \* Submission of etc indicating critical areas, over progress of projects.
- \* Analysis of delays occurred, delays likely to occur.
- \* Preparation of various reports to Management regarding activities of project wing.

#### 4.6 OUTLOOK FOR THE COMPANY

On the back of strong commitment for infrastructure funding and revival and strong comeback by the auto sector, the Steel demand in the country is projected to go up by 10% giving an encouraging opportunity for the Company to improve its overall performance. However, the raw material prices continue to be a major concern as they have cut into the margins of the company for the year and shall continue to show a negative impact in the coming year as well cutting into the bottom line of the company. The Iron ore prices have already been increased by 40% from the price level of 2009-10 and are likely to go up further while the imported coking coal prices have gone up by 56% in the First Quarter of 2010-11. The Company will continue to face stiff competition from steel producers in the private sector who are making higher availability of long

products in the market particularly in the Southern India Region. Efforts are on for improvement of the net sales realization by value added production and better delivery mechanisms to enhance consumption.

The company is looking at optimization of product and market mix and production at higher levels of efficiency and productivity with a focus on cost reduction to partially neutralize the impact of cost escalations. All said and done, steep increase in prices of key raw materials like coking coal and iron ore and the sluggish market and declining selling prices is and further likely to put pressure on the margins. The Company, in the current year, is also focusing on synchronization for commissioning of various units of the Expansion project (6.3 Mt stage) in logical sequence to the extent possible so as to minimize logistical/operational over heads with increase of production.

RINL is continuing its efforts on strategic initiatives for acquiring overseas coal mines through the Joint Venture Company, International Coal Venture Ltd., and long term contracts with the major coal suppliers and through the joint venture company RINMOIL formed for setting up of ferro alloy plant with M/s MOIL. Further, to improve energy efficiency of the Plant, the company entered into an MOU with NEDO for a 20.60 MW waste heat recovery system.

Our people, the RINL collective, continue to be the key to the success of the Company. The Steel Ministry's Trophy, which was given for the first time, was received by the Company in the year and this, along with many other recognitions like "Energy efficient unit" conferred by CII, Rajbhasha Award, CMMI Level -3 Certification, Gold and Bronze medals - ICQCC - Philippines, India's "Best Companies to Work for 2009" etc., is a testimony to the company's commitment to Excellence in Steel making.

### Strategic Initiatives During The Year :

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 pursued are given below :

*JV with M/s MOIL :* RINL-VSP has formed a joint venture company with M/s Manganese Ore India Ltd-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 37,500 tons per annum of Silico Manganese and 20,000 tons 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 the Company's existing mines and also Manganese from M/s OMDC etc.

*BIRD Group of Companies :* Union Cabinet in its meeting held on 10.09.09, has approved the restructuring proposal of BIRD Group of Companies. In the proposed restructuring, M/s OMDC and M/s BSLC will be made subsidiaries of M/s EIL, which in turn will be made a subsidiary of RINL, thus bringing M/s EIL, M/s OMDC and M/s BSLC under the umbrella of M/s RINL. The other two companies viz., M/s KDC & M/s SSL would be phased out. M/s OMDC have 6 Mining leases for Iron ore with reserves of 200 Mt & Manganese reserves of 45 Mt and M/s BSLC have 375 Mt of Lime stone and 287 Mt of Dolomite reserves. This alliance would be of mutual benefit.

*Iron Ore Security :* Applications for Mining Leases (ML) in two areas were filed in Bhilwara Iron Ore Mines, Rajasthan.

*Pelletization Plant* : RINL is getting its entire iron ore requirements from M/s NMDC's Bailadilla Mines since inception. There have earlier been major disruptions to the railway line (KK line) transporting the iron ore, due to disruptive activities. In order to ensure secure transportation of iron ore from Bailadilla and further value addition, an EOI was invited for setting up Pelletization Plant at Visakhapatnam of capacity 6-8 mtpa through SPV, with transportation of iron ore in slurry form..

*SMS grade limestone*: Suitability of limestone in Dubai(UAE), Philippines, etc are being explored.

*Process Improvements*: The structure of formulation of annual plans in the company was revised with the introduction of the concept of Roll-on plan and accordingly Sustainability Plan 2009-10 & Roll-on Plan till 2013-14 were finalized. This was done with a view to maintain thrust on important aspects without compromising on the long term goals and also to carry forward unfinished agenda in the plan to subsequent year after due corrections.

*Awards* : During the year 2009-10, VSP was declared as the recipient of the First Steel Minister's Trophy for the year 2006-07. As per the survey conducted by The Great Place to Work Institute (USA) in association with The Economic Times for "India's Best Companies to Work for - 2009," the Company was adjudged among the:

- Top Fifty Indian companies to work for in India
- Top Two PSUs
- Top Four among the large organizations
- Top Six in the manufacturing segment.

New Initiatives / New Mining Leases :

*Iron Ore* : RINL/VSP has submitted 2 mining lease applications for iron ore deposits in the State of Rajasthan for an area of 2303.75 & 2948.50 hectares respectively.

*Coking Coal* : Two Coal Blocks for underground mining have been allotted to RINL/VSP in the State of Jharkhand. One at Mahal vide Lr.No. 13016/64/2004-CA/CA-1, dt.09.12.2005 and the other at Tenughat Jhirki vide Lr. No. 38011/11/2006-CA-1, dt. 10.09.2008. Both the blocks are difficult mines with deep seated seams, steep inclinations, highly gaseous, number of faults, nallah/river blocking substantial reserves, low recovery etc. The Company has requested Ministry of Coal / GOI to allot a good coking coal block with open cast mining so that the allotted blocks can be handed over.

*Dolomite* : A fresh application was submitted in the office of ADMG, Kothagudem on 02.11.2009 for Dolomite Mining Lease at Dharmapuram Village, Khammam District, AP. District Collector, Khammam advised to make a joint survey by Forest and Revenue Departments to take suitable decision to give NOC to RINL/VSP.

*Quartzite* : Over an extent of 40.47 ha. in survey No. 268 of Pindrangi village, K.Kotapadu Mandal, Visakhapatnam District for a period of 30 years vide Memo No.9133/ M.III(2)/2007-, dt. 27.01.2009 by Department of Industries & Commerce, Govt. of Andhra Pradesh has been sanctioned in favour of RINL. Over an extent of 20.64 ha. in survey no. 1 of Marrivalasa village, K. Kotapadu Mandal, Visakhapatnam District for a period of 30 years vide Memo No. 9132 / M.III (2) / 2007-3, dt. 27.01.2009 by Department of Industries & Commerce, Govt. of Andhra Pradesh has been sanctioned in favour of RINL.

To obtain Environmental clearance, M/s Apitco Limited, Hyderabad (Recognised by MoEF/GoI) has been appointed for preparation of (i) Environmental monitoring baseline data for one season and (ii) Environmental Impact Assessment & Environmental Management Plan.

Growth Strategy For VSP :

Armed with a vision to become world class integrated steel plant, the Vizag Steel Collective is charged with a steely resolve to face a challenging tomorrow. Some of the initiatives taken to make VizagSteel a world class organization are:

- Adoption of business excellence through CII-Exim Business Excellence Model.
- Initiation for ERM(Enterprise Risk Management) & ERP(Enterprise Resource Planning).
- Implementation of Six Sigma methodology.
- Implementation of '5S' for outstanding housekeeping.
- Bench marking with world class companies.
- Introduction of Knowledge Management to harness the inner potential of employees.
- Introduction of e-commerce.
- Acquisition of captive mines in India and abroad through joint venture, so as to have a level playing field with its competitors.

In line with its vision to become a continuously growing company, Vizag Steel recast its expansion plan to double its capacity from its present 3 MT to 6.3 MT by 2011-12. The approval for its recast expansion plan was obtained on 28<sup>th</sup>

Oct '05 in a record time of 10 months. The expansion has been planned to further strengthen its long product leadership in the country through production of special bars, wire rods and structurals, in view of its high brand image and also envisaged demand in line with the infrastructure growth of the country. A seamless tube plant has been planned for the first time in an integrated steel plant to cater to the growing oil and gas industry and reduce dependence on imports of seamless tubes. The next phase of expansion to 10 MT is planned for completion by 2019-20 which will include flat products also to provide a rich product mix.

## Chapter 5