C.P.U. No. 917

26

TWENTY SIXTH REPORT

COMMITTEE ON PUBLIC UNDERTAKINGS

(2007-2008)

(FOURTEENTH LOK SABHA)

COMPREHENSIVE EXAMINATION ON
"STEEL AUTHORITY OF INDIA LIMITED"

MINISTRY OF STEEL

Presented to Lok Sabha on 29.04.2008

Laid in Rajya Sabha on 29.04.2008

LOK SABHA SECRETARIAT

NEW DELHI

April 2008 / Vaisakh 1930 (S)

CONTENTS

COMPOSITION OF THE COMMITTEE ON PUBLIC UNDERTAKINGS (2007-2008)

Shri Rupchand Pal - Chairman

Members, Lok Sabha

2. Shri Ramdas Bandu Athawale
3. Shri Ramesh Bais
4. Shri Gurudas Dasgupta
5. Smt. Sangeeta Kumari Singh Deo
6. Shri Francis K. George
7. Dr. Vallabhbhai Kathiria
8. Ch. Lal Singh
9. *Dr. Rameshwar Oraon
10. Shri Shriniwas Patil
11. *Kunwar Jitin Prasada,
12. Shri Kashiram Rana
13. Shri Mohan Rawale
14. Shri Ramjilal Suman
15. Shri Ram Kripal Yadav

Members, Rajya Sabha

16 **Prof. Ram Deo Bhandary
17 Shri R.K. Dhawan
18 Shri Mahendra Mohan
19 **Shri Ajay Maroo
20 Shri Pyarimohan Mohapatra
21 Shri K. Chandran Pillai
22 **Shri Dinesh Trivedi

Secretariat

1. Shri S.K. Sharma - Additional Secretary
2. Shri J.P. Sharma - Joint Secretary
3. Smt. Anita Jain - Director
4. Shri Ajay Kumar - Deputy Secretary-II
5. Shri Bala Guru G. - Senior Executive Assistant

---

* Elected w.e.f. 17.5.2004 Dr. Rameshwar Oraon and Kunwar Jitin Prasad ceased to be Members of the Committee consequent on their appointment as Ministers of States w.e.f. 6.04.2008.

** ceased to be Members of the Committee consequent on their retirement from Rajya Sabha w.e.f. 02.04.2008 and 09.04.2008.

INTRODUCTION

I, the Chairman, Committee on Public Undertakings (2007-08) having been authorized by the Committee to present the Report on their behalf, present this Twenty Sixth Report on Steel Authority of India Limited (SAIL). This report is based on the comprehensive examination of SAIL.

2. The Committee took oral evidence of the representatives of Steel Authority of India Limited on 5 December, 2007 and of the representatives of the Ministry of Steel on 8 February, 2008.

3. The Committee considered and adopted the Report at their sitting held on 24 April, 2008.

4. The Committee wish to express their thanks to the Ministry of Steel and Steel Authority of India Limited for placing before them the desired material and information required in connection with examination of the subject. The Committee also wish to thank in particular the representatives of the Ministry of Steel and Steel Authority of India Limited who gave evidence and placed their considered views before the Committee.

5. The Committee would also like to place on record their sense of deep appreciation for the invaluable assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

6. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in Part-II of the Report.

New Delhi
24 April, 2008
04 Vaisakh, 1930(S)

RUPCHAND PAL
CHAIRMAN
COMMITTEE ON PUBLIC UNDERTAKINGS

ACRONYMS

SAIL	Steel Authority of India Limited
CIL	Coal India Limited
TISCO	Tata Iron and Steel Company
IISCO	Indian Iron and Steel Company
NSP	National Steel Policy
MEL	Maharashtra Electroskelt Limited
BSP	Bhilai Steel Plant
MOU	Memorandum of Understanding
MMDR	Mines and Minerals (Development and Regulation) Act
MTPA	Million tones per annum
SPV	Special Purpose Vehicle
JV	Joint Venture
MT	Million Tones
CAGR	Compounded Annual Growth Rate
GNP	Gross National Product
NINL	Nilachal Ispat Nigam Limited
RINL	Rashtriya Ispat Nigam Limited
TMT	Thermo Mechanically Treated Bars
GP/GC Sheets	Galvanised Plain/ Galvanised Corrugated Sheets

Glossary of Terms

Hot Metal (Liquid Iron)	It is the hot, liquid, metallic iron product obtained upon reduction of iron ore (normally in Blast Furnace). It contains about 93-94% Iron (Fe) and other elements/impurities like Carbon (4%), Silicon (~1%), anganese(+1%) Sulphur, Phosphorus etc. Hot metal is the primary input for production of steel in the Integrated Steel Plants.
Steel	Steel is an iron based alloy containing Carbon, Silicon, Manganese etc.
Semis	Intermediate solid steel products obtained by Hot rolling/Forging of ingots (in conventional process) or by Continuous casting of liquid steel are known as Semis. These are called so since they are intended for further rolling/forging to produce Finished steel products.
Crude Steel	The term is internationally used to mean the 1st solid steel product upon solidification of liquid steel. In other words, it includes Ingots (in conventional mills) and Semis (in modern mills with continuous casting facility).
Saleable Steel	The term is used to designate various types of solid steel products, which are sold to outside customers for further processing or for direct use/consumption. Therefore, it includes ingots and/or semis and/or finished steel products. (Liquid steel is normally not traded).
Stainless Steel	which essentially contains chromium (normally more than 10.5% with/without nickel or other alloying elements. As the name implies, stainless Steel resist staining/corrosion and maintains strength at high temperatures.
Iron Ore	A naturally occurring mineral from which iron (Fe) metal is extracted in various forms viz Hot metal/ DRI etc.
Beneficiation of Ore	Very low grade Iron ore cannot be used in metallurgical plants and needs to be upgraded to increase the iron content and reduce the Gauge content. Processes adopted to upgrade ore is called Beneficiation.
Sinter	Sinter is a clinker like aggregate which is normally produced from relatively coarser fine iron ore (normally –3mm) mixed with coke breeze (-3mm), limestone dolomite fines (-3mm) and other metallurgical return wastes from the plant.
Pellet	Pellets are normally produced in the form of Globules from very fine iron ore (normally –100 mesh) and mostly used for production of Sponge Iron in gas based plants, though they are also used in blast furnaces in some countries in place of sized iron ore.
Coking Coal	Coking coals are those varieties of coal which on heating in the absence of air (process known as Carbonisation) undergo transformation into plastic state, swell and then re-solidify to give a Cake. On quenching the cake results in a strong and porous mass called coke.
Coke	Coke is the residual solid product obtained upon carbonisation of coking coal. Depending upon property, coke is known as Hard Coke, Soft Coke and Metallurgical Coke.
BF Productivity	which is measured in terms of tonnes of hot metal produced, per cubic meter of blast furnace volume, per day (T/cubic met/day).
Coke Rate	This is measured in Kgs. of BF Coke consumed per tonne of Hot Metal produced in the Blast Furnace(Kg/THM). By convention, this excludes coke (nut/pearl coke) mixed with sinter etc.
Coal Dust Injection (CDI)/ Pulverised Coal Injection (PCI):	These are technologies wherein pulverised/ granulated/ dust coal is injected into the blast furnace through the tuyers along with the Blast to replace part of the coke requirement..
Fluxes	Limestone, Dolomite, etc. used in Iron/ Steel making which react with the undesirable gangue material/ impurities and removed ash slag.
Hot Rolling	Rolling of Steel at above the recrystallisation temperature of steel (normally above 1000 C) to produce Hot Rolled Long products/Flat Products from semis. Ingots are also hot rolled to get semis. At times blloms are also hot rolled to produce Billets. Rolling Mills used for hot rolling are known as Hot Rolling Mills.
Cold Rolling	Rolling of steel (normally flat products) below the recrystallisation temperature of steel (normally at Room Temperature) to produce cold rolled sheets /strips /coils. Mills used for the purpose are called Cold Rolling Mills.
Long Products	Finished steel products produced normally by hot rolling/forging of Bloom/billets/pencil ingots into useable shape/sizes. These are normally supplied in straight length/ cut length except Wire rods which are supplied in irregularly wound coils.
Finished Steel .	Products obtained upon hot rolling/forging of Semi-finished steel (blooms/billets/slabs)
Alloy Steel	Steel which is produced with intended amount of one or more alloying elements in specified proportions to impart specific physical, mechanical, metallurgical and electrical properties.

CHAPTER- I

INTRODUCTION

(i) Historical Background

Formation of SAIL:

1.1 The Government of India, in December 1972, decided to set up a Holding Company for steel and associated input industries under the name of "Steel Authority of India Limited" to be registered in the Union Territory of Delhi. The Company was proposed to be set up inter-alia with the following objectives:

(i) to plan, promote and organise an integrated and efficient development of the iron and steel and associated input industries such as iron ore, coking coal, manganese, limestone, refractories, etc., in accordance with national economic policy and objectives laid down by the Government from time to time.

(ii) to coordinate the activities of its subsidiaries to determine their economic and financial objectives/targets and to review, control, guide and direct their performance with a view to securing optimal utilisation of all resources placed at their disposal.

(iii) to act as entrepreneur on behalf of the State to identify new areas of economic investments and to undertake or help in the undertaking of such investments.

(iv) to formulate and recommend to the Government a national policy for the development of iron and steel and related input industries and to advise it on all policy and technical matters.

1.2 In pursuance of the decision of the Government of India, the Steel Authority of India Limited (SAIL) was formed on 24th January, 1973. The shares held by the President of India in the following companies were transferred to SAIL:

- Hindustan Steel Limited (HSL)
- Bokaro Steel Limited (BSL)
- Salem Steel Limited (SSL)
- Hindustan Steel works Construction Limited (HSCL)
- Bharat Coking Coal Limited (BCCL)
- National Mineral Development Corporation Limited (NMDC)

(ii) Shareholding Pattern

From the time of the SAIL's formation until 1992, the Government of India owned all of SAIL's equity capital. The Government disinvested some part of its equity in SAIL in phases during 1992 to 1995. The present paid - up capital of the company is Rs. 4130.40 crores. Out of the above paid-up capital the President of India is holding Rs. 3544.69 crores (85.82%) and the balance shares are held by the financial institutions, mutual funds, Banks, Employees, GDR - holders and individuals. The total number of shareholders are 2,03,259 as on 31.5.2007**)**.

(iii) Role /Objectives/Functions

As per the Memorandum of Association of the Company, the main objects of the Company are as under:

"1) To carry on in India and elsewhere the trade or business of manufacturing, prospecting, raising, operating, buying, selling, importing, exporting, purchasing or otherwise dealing:

i) in iron and steel of all qualities, grades, types and kinds as iron mongers, iron masters, steel makers and steel convertors;

ii) in ferro-silicon, ferro-chrome and/or all products made of iron and steel, coking coal, manganese, ferro-manganese, limestone, refractories, iron ore and other alloys;

iii) as miners, smelters, iron founders in all respective branches;

iv) in stainless steel, silicon steel, special steel, mild steel and in allied products, fire-clay, dolomite, limestone, refractories, iron ore, bauxite, cement, chemicals, fertilizers, manures, distilleries, dye making and industrial and non-industrial gas, lime burners, stone quarrying, concrete manufacturing in all respective branches, and other allied input or other materials, and for that purpose to construct, install, operate, manage and maintain all plants, mines, establishments, works etc.

2) To do consultancy services required to design, establish, provide, maintain and perform engineering and related technical and consultancy services for the development of ferrous and non-ferrous, metallurgical enterprises, chemical and petro-chemical enterprises, fertilizer plants, cement plants, refractory plants, laboratories for control and/or research purposes, water works, gas works, sewage disposal plants, thermal and hydro-electric power stations, electrical generators, transmission and distribution and all other types of industrial projects; and for that purpose to prepare and get prepared feasibility reports, detailed project reports, market studies, techno-economic investigations, survey of all types, site selection, planning basic and process engineering, preparing specifications and documents, tender evaluation and purchase assistance, detailed design and working drawing, shop inspection, expediting construction, supervision, project management commissioning operation and maintenance, training of personnel, pre and post operation consultancy and any such other services.

3) To construct, execute, carry out, improve, develop, manage or control iron and steel works and bye-products and ancillary plants, fertilizer plants, coke ovens, foundries, furnaces, brick kilns, refractory works, factories, railways, tramways, ropeways, runways, roads, aerodromes, docks, harbours, piers, wharfs, dams, barrages, weirs, reservoirs, embankments, canals, irrigation, power houses, transmission lines, reclamation, improvement, sewage, drainage, sanitary, water, gas, electric light, telephonic and power supply works and hotels, houses, markets and buildings, private or public, and all other works, conveniences whatsoever, and generally to carry on the business of builders, contractors, engineers, architects, estimators, and

designers in all their respective branches and to undertake works on contract basis for civil engineering, mechanical engineering, electrical engineering, erection engineering, water supply, etc. and to tender for such works, and to undertake consultancy services in the above fields, general accounting, material management, industrial engineering and other management services etc.

4) To plan promote, and organize an integrated and efficient development of the iron and steel and its associated input industries such as iron ore, coking coal, manganese, limestone, refractories etc. in accordance with the national economic policy and objectives laid down by the Central Government from time to time.

5) To acquire shares, stocks or securities in or of any company carrying on any business which this Company is entitled to carry on or any other company or undertaking the acquisition of which may seem likely or calculated directly or indirectly to promote or advance the interests of or be advantageous or beneficial to the Company and to sell or dispose of or transfer any such shares, stocks or securities.

6) To coordinate the activities of its subsidiaries, to determine their economic and financial objectives/targets and to review, control, guide and direct their performance with a view to secure optimal utilisation of all resources placed at their disposal.

7) To act as an agent of Govt./Public Sector financial institutions, to exercise all the rights and powers exercisable at any meeting of any company engaged in the iron and steel industry, the coking coal industry or other allied industries, in respect of any shares held by the Government, public financial institutions, nationalised banks, nationalised insurance companies with a view to secure the most effective utilisation of their financial investments and loans in such companies and the most efficient development of the concerned industries.

8) To carry on the business of trading in and dealing in any manner whatsoever in all commodities, goods and things, manufactured, produced or dealt with in any manner by any of the subsidiaries of the Company.

9) To act as an entrepreneur on behalf of the Central Government, to identify new areas of economic investments and to undertake or help in the undertaking of such investments.

10) To formulate and recommend to the Central Government a national policy for the development of iron and steel and related input industries and to advise them on all policy and technical matters.

11) To act as an instrument of the policy of the Central Government subject to such directives as may be issued by the President from time to time, with a view to exercise control over strategic area of economy."

When asked to furnish a note on the study, if any, conducted by the Administrative Ministry/ SAIL to ascertain the extent to which the company has achieved its objectives and the reasons for non achievement of objectives, SAIL in their written reply stated as under:

> "There is no specific study conducted by the Ministry in this regard. However, quarterly review of the performance of SAIL is being done by the Ministry and the objectives set for the company under the MOU are monitored. The final appraisal of the performance is done by Department of Public Enterprises which grades SAIL annually.
>
> Company Ratings with regard to MOU targets for the last three years is as under:

Year	MOU Ratings
2006-07	Excellent (Prov.)
2005-06	Excellent
2004-05	Excellent

(iv) Present activities of SAIL

SAIL owns and operates eight manufacturing plants – five integrated steel plants at Bhilai, Durgapur, Rourkela, Bokaro and Burnpur producing carbon steels, and three plants at Salem, Durgapur and Bhadravati making stainless and alloy steels. The subsidiary at Chandrapur is a bulk producer of ferro-alloys.

The Company also has the distinction of being India's largest producer of iron ore. In fact, owning India's second largest mines network provides SAIL a competitive edge in terms of captive availability of iron ore, limestone, dolomite, etc.

Equipped with the latest steel making technologies, the SAIL Plants produce a variety of steel products that meet the exacting requirements of both domestic as well as overseas customers. With the widest product range among Indian steel producers, SAIL offers 50 mild, special and alloy steel products in 1000 qualities and 5000 dimensions,

The company's vast portfolio of long, flat and tubular products is marketed within India by its Central Marketing Organization, headquartered in Kolkata, through a vast network of branch offices and stockyards. Exports are handled by the International Trade Division based in New Delhi. SAILCON, another unit in New Delhi, provides consultancy services in iron & steel and related areas to clients worldwide. By-products and chemicals are marketed directly by the steel plants.

SAIL has reoriented its products-mix to keep pace with market demand. Higher production of special grade items like API grade HR Coils/Plates/Pipes, HR Coils for cold reducers etc. have enabled SAIL to maintain and achieve larger market share in value-added segments. By branding some of its products, the company has also been able to achieve better recognition and value in the market.

With a strong emphasis on tuning business activities for customer satisfaction, the company ensures supplies of customized products with shorter lead-time. Through the process of Key Account Management, CMO provides single-window services to key customers across the country. There is increased product focus and constant review of distribution channels.

Though primarily a domestic player, SAIL has established a reputation for itself as a consistent and reliable supplier of world-class quality products in the international market as well. SAIL products have been well accepted in more than 75 countries in the World, including China, Japan, US, European countries, South-East Asia etc.

To improve operating processes, introduce new products for the steel industry and achieve world standards in steel making, SAIL has a well equipped Research & Development Centre for Iron & Steel at Ranchi. Also located at Ranchi are SAIL's Centre for Engineering & Technology, Management Training Institute and SAIL Safety Organisation.

Going beyond steel production, SAIL has formed several joint ventures in different areas ranging from power plants to e-commerce. Two are with NTPC and DVC for taking care of the steel plants's captive power requirements, one with USX Engineers & Consultants, a subsidiary of US Steel Corporation, for promoting IT in the steel sector, and one with BMW for a steel service center at Bokaro. SAIL and Tata Steel have also jointly set up m-junction services Ltd., a company managing e-commerce activities in steel and related areas. A Joint Venture company namely Bhilai Jaypee Cement Limited has been recently formed for setting up 2.2 million tonne slag based cement plant at Bhilai and Satna. SAIL has also initiated strategic alliances with Kudremukh Iron Ore Co. Ltd., in India and BHP Billiton, the world's largest natural resource company to jointly develop iron ore mines and secure supplies of coking coal.

(v) Organisational set-up

From the organizational set-up of SAIL, it is noted that Chairman is the head of the Company and below him are four Directors viz. Director(Personnel), Director(Finance), Director(Technical) and Director(Commercial) to oversee the activities of various divisions of the Company. Besides each of the five integrated steel plants are headed by a Managing Director.

On being asked as to whether the present organizational set up is adequate/satisfactory, the SAIL in their preliminary written reply stated as under:

> "Based on the organizational requirements, the present organizational set up is considered adequate/satisfactory. "

CHAPTER II

PHYSICAL PERFORMANCE

(i) Capacity Utilization

As per the information furnished by the Company, the capacity utilization in steel plants of SAIL is as follows:

Plants	% Capacity Utilization (2006-07)
Bhilai Steel Plant (BSP)	134
Durgapur Steel Plant (DSP)	107
Rourkela Steel Plant (RSP)	116
Bokaro Steel Plant (BSL)	102
IISCO Steel Plant (ISP)	95
Alloy Steels Plant (ASP)	76
Salem Steel Plant (SSP)	105
Visveswaraya Steel Plant (VISL)	133

SAIL in their written reply further stated as under:

"As seen above, all the SAIL plants have surpassed capacity during 2006-07 except ISP and ASP. Production at ISP was affected mainly due to equipment breakdowns in Blooming Mill which is an old mill and is planned to be phased out after modernization/expansion. Production in ASP was below capacity due to lower production of stainless steel slabs which is set to increase with the commissioning of Argon Oxygen Decarbonisation (AOD) unit during 2007-08."

(ii) Blast Furnace Productivity

The Committee were informed that SAIL has a lower productivity of Blast furnace, when compared with Rashtriya Ispat Nigam Limited (RINL), Tata Steel (TISCO) etc. When asked to explain the factual position, the Company furnished the following information:

"BF productivity mainly depends on the quality of inputs like Coal and Iron ore etc. Tata steel and RINL have access to better quality iron ore , as shown below:

	2005-06					
Company/mines	Iron Ore Quality					
	Lump			Fines		
	% Fe	% SiO2	% Al2O3	% Fe	% SiO2	% Al2O3
Tata Steel						
Joda	66.84	1.54	1.33	65.57	1.63	2.13
Noamundi	67.57	0.77	1.25	66.14	1.05	2.1
RINL	66	1.66	1.3	64.2	3.61	1.81
SAIL						
Dalli	65.16	2.83	1.85	63.86	4.42	2.34
Rajahara	65.28	2.82	1.74	62.88	4.74	2.71

Kiriburu	63.26	2.8	1.99	62.79	4.00	2.28
Meghataburu	63.91	2.0	2.2	63.44	2.79	2.47
Bolani	63.44	1.58	1.83	63.09	1.98	2.19
Barsua	62.71	1.49	3.39	62.12	2.7	3.51
Kalta	63.71	1.33	2.68	62.85	2.33	3.1

It can be seen from the table that quality of iron ore in SAIL is inferior as compared to Tata Steel and RINL in terms of lower Fe content and higher gangue (Al2O3 & SiO2)

Further at RINL, ash in Coal blend is 11-11.5% as compared to 12.5-17 % in SAIL. For every 1% increase in Coal Ash, BF Productivity decreases by about 2.5 %.

RINL has two large blast furnaces of 3200 M3 volume each as against blast furnaces of sizes varying from 500 to 2000 M3 in SAIL.

Therefore, productivity of blast furnaces at Tata Steel & RINL is higher as compared to SAIL plants it has been informed by the Company that the productivity of blast furnaces at Tata Steel and Rashtriya Ispat Nigam Limited (RINL) is higher as compared to SAIL Plants."

The Committee noted that the quality of iron ore in SAIL is inferior as compared to Tata Steel and RINL in terms of lower iron ore content and higher impurity. When asked as to what remedial measures are being taken in this regard, the reply of the Company was as under:

"Iron ore mines of SAIL were developed way back in 60s and 70s with the technology available at that time. SAIL has decided to modernize the processing/beneficiation plants of operating mines at Kiriburu, Meghahatuburu, Bolani, Barsua and GUA. Moreover, new mines and beneficiation plants to be developed at Chiria, Rowghat, Taldih and Thakurani will have state-of-art technology to provide higher quality of iron ore. Beyond 2010-11, SAIL steel plants will receive better quality of iron ore."

(iii) <u>Coke Rate</u>

Coke rate indicates consumption of coke (in kgs) for production of one MT of hot metal in blast furnace. The Committee were informed that the coke rate of SAIL is higher than the coke rate of other steel majors such as RINL, TISCO etc. In this regard, when asked as to what steps have been taken to decrease the coke rate, the Company in their written reply stated as under:

"SAIL has taken various steps to reduce coke rate such as:

- Modernisation & technological upgradation of Blast furnaces, whenever they are due for capital repairs. Two of the blast furnaces have upgraded namely blast furnace No. 4 at RSP & No.7 of BSP.
- Maximising usage of sinter in burden.
- SAIL has planned for using alternate fuel to reduce coke consumption. Presently 6 furnaces in SAIL are using pulverized coal injection This facilities is gradually being incorporated in other blast furnaces.
- SAIL has planned to install bigger volume blast furnace of 4000 m3 each at BSP, BSL & ISP under expansion plan, which will provide economy of scale and bring down coke rate."

On being further asked as to what is the percentage reduction in coke rate of the integrated steel plants of SAIL in the last two years, the Company in their written reply stated as under:

"Coke rate in SAIL plants during last year is follows:

Coke rate Kg/thm	2005-06	2006-07	% reduction in coke rate over 2005-06
SAIL	543	541	0.4

It may be seen from the above table that the percentage reduction in coke rate is presently 0.4% in the integrated steel plants of SAIL. When sought to know as to what would be percentage reduction in coke rate after the implementation of Expansion Plan 2010, the management of SAIL in their written reply stated as follows:

"Reduction in coke rate is dependent on several factors like quality of coke, iron ore, raw materials, technology, usage of secondary fuels like CDI etc.

Significant reduction is planned by 2010 after modernization and upgradation which is expected to be about 15% over present level. However, exact reduction will be known after firming up the expansion plans and inputs."

(iv) Project Implementation

As regards the number of projects commissioned during the last five years, reasons for time lag/delay in commissioning of projects and the major projects currently under execution etc. the following information was furnished by the Company:

MAJOR PROJECTS COMPLETED DURING THE LAST FIVE YEARS

S. No.	Name of the Projects	Cost (Rs. Crore)	Original Schedule	Actual date of Commissioning	Reasons for delay
1.	**2002-03** Upgradation of BF-3 at DSP	194.00	Oct. 02	Aug. 02	-
2.	**2003-04** Reheating furnace-2 in hot strip mill at BSL	64.58	Jun. 02	Jun. 03	Delay in equipment supply and handing over of site
3.	Replacement of 100 ATA steam pipelines along with additional header in TPP & CPP at BSL	43.97	May. 99	Nov. 03	Delay in shutdown due to operational requirement and abandonment of work by BHEL's sub-contractor
4.	**2004-05** Long rail facilities with rail welding plant at BSP Long Rail Facility Rail Welding Plant	320.00	 Aug. 04 Sep. 04	 Aug. 04 Mar. 04	Delay in supply of critical imported equipment as well as deputation of expert for erection supervision & commissioning by Ms. Gelserner.
5.	Turbo Alternator in CPP-1 at RSP	32.03	Oct. 04	Jan. 05	Delay in design engg. Order placement & erection by M/s Alstom and delay in equip supply by BHEL
6.	**2005-06** Capital repair of BF-4 at RSP	118.32	Jul. 05	Sep. 05	Delay in equipment supply by M/s TPE, Russia
7.	Upgradation of ERW Pipe Plant at RSP	108.72	Aug. 05	Oct. 05	Otto India' contract rescinded due to non-performance and subsequent delay in amendment of contract with Salzgitter International (SI) & further delay in equipment supply by SI
8.	Installation of 130T Ladle Furnace at DSP	21.85	Jul.05	Dec.05	Delay in erection work, frequent revision of drawings & change in design of supporting structures of furnace to accommodate for restrictions on account of operational site
9.	**2006-07** Repl. of 15 MW Turbo-Generator in Power Plant-1 at BSP	48.10	Feb.06	Sep.06	Delay in design engg. Equipment supply & equipment erection by BHEL and delay in civil work by BSBK.
10.	Repl./Revamping of B-Strand of Wrie Rod Mill at BSP	74.66	May.06	Dec.06	Delay in basic & detailed engg. And supply of equipment by BEC & ABB
11.	Technological Upgradation of BF-7 Incl. GCP at BSP	170.41	Jul.06	Feb.07	Delay in design engg, site work and equipment supply by Danieli
12.	Argon Oxygen Decarburisation (AOD) & High Powered Electric Arc Furnace at ASP	54.16	Jun.06	Feb.07	Delay in equipment supply by M/s. SMS Demag

MAJOR PROJECTS UNDER EXECUTION

S. No.	Scheme	Sanctioned Cost	Approved Schedule	Likely completion	Reasons for delay
	Bhillai Steel Plant				
1	Rebuilding of coke over battery no. 5	219.04	Jan. 07	Dec. 07	Delay in design engg. By CUI
2	Installation of HAGC & PVR in plate mill	64.10	Jul. 06	Oct. 07	Delay in liquidation of defects by Danieli Automation
3	New Slab Caster, RH degasser and ladle furnace	520.76	Sep. 07	Dec. 07	Delay in design engg. By Danieli
4	Repl. of 4 Nos. medium HP locos by high HP WDS-6 Locos	26.88	Mar. 07	Nov. 07	Delay in supply by M/s DLW, Varanasi
5	HM Desulphrisation in SMS	86.23	Aug. 07	Aug. 07	--
6	Instln. Of power supply facilities for 2x1250 tpd O_2 Plant	62.00	Sep. 08	Sep. 08	--
7	Installation of MSDS-V	143.02	Nov. 08	Nov. 08	--
8	Replacement of MG sets of roughing & finishing stands of PM drives by digital thyristor convertor	53.52	Feb. 09	Feb. 09	--
	Durgapur Steel Plant				
1	Bloom Caster, Reheating Furnace & LF	271.41	May. 06	Jul. 07	Hot trials in progress. Caster under stabilization
2	Coal Dust Injection in Blast Fce-3&4	74.22	Aug. 07	Aug. 07	--
3	Augmentation of power distribution system (Phase-I-)	38.39	Sep. 07	Sep.07	--
	Rourkela Steel Plant				
1	HM Desulphurisation Unit in SMS-II	52.39	May. 08	May. 08	--
2	Installation of Pipe Coating Plant	68.27	Aug. 08	Aug. 08	--
3	Coal Dust Injection in BF-4	70.71	Oct. 08	Oct. 08	--
4	Rebuilding of COB-4	248.94	Aug. 09	Aug. 08	--
5	Uprating of Turbo-Blower No. 5	54.05	Jan. 09	Jan. 09	--
	Bokaro Steel Plant				
1	Installation of CHSG Plant in BF No. 4	35.95	Feb. 06	Jul. 07	Delay in supply & erection of equipment by M/s BSBK.
2	Rebuilding of coke oven battery no. 5	198.84	Jan. 07	Aug. 07	Delay in equipment supply by M/s Beekay
3	Revamping of Mae west blocks in HSM	91.86	Jun. 07	May. 08	Delay in availability of Phase-I equipment by M/s VAI due to falling of container in high seas.
4	Repl. of HCl regeneration plant for pickling line-II of CRM	35.92	Jun. 07	Aug. 07	Delay in supply of imported equipment by M/s ISSI, USA
5	50 MW power tapping arrangement for 1250 TPD O_2 Plant	26.38	May. 07	Dec. 07	Order placement withheld to match with the commissioning of BOO oxygen plant
6	Provision of ATC & OTC at oxygen plant	81.76	Nov. 07	Jul. 08	Delay in handling over of site due to operational requirement
7	Coal dust injection in BF-2&3	133.92	May. 08	May. 08	--
8	Computerized process control system in SMS-II	30.91	Feb. 08	Feb. 08	--
9	Coking coal storage facilities in CHP	134.32	Mar. 08	Mar. 08	--
10	EDT machine in RGBS	29.24	Mar. 08	Mar. 08	--
11	2nd Ladle furnace in SMS-II	96.96	Feb. 08	Feb. 08	--
	IISCO Steel Plant				
1	Rebuilding of BF No. 2	103.93	Sep. 07	Sep. 07	--
2	Replacement of turbo blower	20.58	Oct. 07	Oct. 07	--
3	Rebuilding of COB-10	416.50	Sep. 09	Sep. 09	--
	VISL				
1	Installation of Bloom Caster in SMS	87.64	Feb. 09	Feb. 09	--
	General				
	Repl. of 11 nos. medium HP locos by 10 nos. WDS-6 & 1 no. WDG-3A high HP locos	84.39	Dec. 08	Dec. 08	--

From the above table, it is seen that some of the major projects currently under execution are unlikely to be commissioned as per schedule due to various types of delays such as delay in supply & erection of equipment, delay in equipment supply and delay in handing over of site due to operational requirement etc.,

To a question whether there is any mechanism for speedier project implementation, the reply of the Company was as under:

> "As a step towards expediting completion of projects, SAIL has simplified its purchase and contract procedures. The new procedure aims at meeting the expectations of internal and external customers, transparency requirements, improving the speed of decision making, instilling confidence amongst the decision taking authorities, etc. for timely implementation of ensuing projects."

On further being asked as to whether the Board monitors completion of projects on monthly basis, the Company in their written reply stated as under:

> "The status of various projects of SAIL is put up to SAIL Board through a detailed Board Note giving the physical and financial progress of all projects. The Board meetings are held almost every month and performance of projects is monitored."

When sought to know whether review meetings are being taken for each project at the level of Director and CMD on fortnightly basis to monitor the progress of the Projects and to initiate appropriate remedial actions, wherever there are slippages, the Company in their reply stated as follows:

> "In order to ensure that the projects are completed on schedule, the projects are monitored on day-to-day basis by the respective Project Managers of the Plants and the Project Heads. The Project In-charges and various monitoring committees, both at plant and corporate level, analyse the progress of respective packages w.r.t. delays and suggest corrective actions to be taken from time to time. Further, the project is monitored by the Plant Level Standing Committee comprising of Head of Projects, Head of Works and Head of Finance on a monthly basis. This Plant Level Standing Committee submits its action plan to the Managing Director/ Chief Executive of the Plant for remedial actions, if any, to be taken to ensure that the projects are completed in time. Managing Director/ Chief Executive of the Plant reviews the projects every month for timely action to complete the projects on schedule.
>
> A Board Sub-Committee, comprising of two independent Directors, Director (Technical) and Managing Director of the Plant, has been constituted to review the major projects (Rs.100 Crore & above) on a quarterly basis. The major projects are further reviewed at the level of Secretary (Steel), Ministry of Steel, on a quarterly basis"

CHAPTER-III

FINANCIAL PERFORMANCE

The financial performance of SAIL for the years 2002-03, 2003-04, 2004-05, 2005-06 and 2006-07 indicating the budgeted and actual figures in respect of turnover, value added, profit/loss dividend paid, etc., is given below.

YEAR	2006-07 @		2005-06 $		2004-05		2003-04		2002-03	
	MOU	Actual	MOU	Actual	MOU	Actual	MOU	Actual	MOU	Actual
Turnover / Sales	35355	39189	30760	30993	22407	31805	19136	24178	18000	19207
Value added*	6166	8467	5267	5466	1866	9091	-	3130	-	511
Profit/loss (PAT)	4306	6202	3418	3850	1502	6817	77	2512	-800	-304
Dividend to Govt.	-	1099	-	709	-	1170	-	-	-	-
Internal-Resources #	-	6064	-	4460	-	6581	-	3945	-	1173

From the table, it is seen that there is a wide variation between the figure of estimated profit and actual profit. When enquired as to what are the reasons for the wide variation, SAIL in their written reply have stated as follows:

> "Globally the steel markets are more volatile. The business performance of SAIL also reflects the cyclic nature of the steel business. MOUs are signed between Ministry of Steel and SAIL to improve the performance of the Company based on the guidelines and parameters like production and Net Sales Realisation (NSR)etc. issued by the DPE. The process of fixing target for the next financial year starts in the month of October of the previous year and MOU is finalized by the end of December taking into consideration past performance. Being a cyclical industry, actual movement of price of steel & inputs (like imported coking coal, ferro alloys, aluminum, nickel, zinc, limestone, dolomite, power, stores & spares, etc.) varies during the year, resulting in direct impact on actual profitability, either favourably or adversely.
>
> During 1998-1999 to 2000-03 the economy was sluggish, there was declining trend in the international steel prices, adversely affecting sales realization in the domestic market. MOU targets for the year 2003-04 were finalized based on the market projections and NSR during the year 2002-03. However, consistent efforts of SAIL collective coupled with buoyancy in the steel market resulted in a strong recovery and SAIL registered a Profit (after tax) of Rs2512 crores. Similar methodology was adopted for the financial year 2004-05 and 2005-06.
>
> Considering the extreme volatility in steel prices, from 06-07 MOU, targets are now contingent on variation of Steel prices/NSR. If the NSR varies more than ±5% of the stipulated NSR, suitable changes are made in MOU parameters."

From the above table, it is further seen that SAIL turned out into a profitable company only. from 2003-04. When asked as to what are the reasons for the turn around, SAIL in their written reply stated as under:

> "The business performance of SAIL reflects the cyclic nature of the steel business. SAIL suffered losses mainly due to slowdown in the economy resulting in stagnation in steel consumption, declining trend in international steel prices adversely affecting net sales realization (NSR) in domestic market. However, consistent efforts of SAIL collective coupled with buoyancy in the steel market helped SAIL to turnaround in the year 2003-04. The company registered all round improvement in its performance. Turnover reached to all-time high of Rs.24178 crs. the highest ever annual net profit (PAT) of Rs.2512 crs. thus, registering an improvement of Rs. 2816 crs. over the previous year. Internal efforts taken by SAIL to improve the profitability are:
>
> Intensive cost control drive.
> Steps to improve techno-economic parameters such as coke rate, energy consumption etc.
> Rightsizing of manpower& implementing VRS.
> Market oriented product- mix."

When asked as to whether the increase in profit has come through market forces or through internal efficiency, the CMD of SAIL during the oral evidence stated as follows:

> "Of course, the profit is the product of both the market prices as well as the costs. Now, I would like to submit that it has been a combination of market forces where international steel prices as well as the domestic steel prices improved from a very low level in 2002-03 to 2006-07. Also, there is a series of internal steps, which we took in reducing our costs. It can be taken about that 55 per cent has come through the internal efficiency parameters and about 40 to 45 per cent has come on account of the market improvement.
>
> I would tell what steps we took to reduce the cost and internal efficiency. Our capacity utilisation went up from 100 per cent to 115 per cent from the same equipment. Higher volume brought about extra profit. We have brought down our energy consumption from 7.75 gega calorie to almost seven. It has brought down the cost of energy, which is the major cost in production in SAIL. Our coke rate came down from 570 kg to 540 kg; our blast furnace productivity has also increased from 1.4 to more than 1.5 tonne. Value added products, which gives us higher realisation, has gone up from 1.5 million tonnes to 3 million tonnes. We have doubled the production of value added products. Our yield has improved. Our losses, which are on waste and scrap category, has come down. The finished products, which can go to the market, have gone up. We have done prudent financial management to reduce our interest cost, as I had shown. Earlier, we were incurring Rs. 1300 crore as interest cost, which will come down to less than Rs. 300 crore this year. Virtually, we have been reducing about Rs. 500 crore to Rs. 700 crore in our cost every year. Cumulative impact of that is reflected on our profit. But I have no hesitation in conceding that part of improvement in profit is also due to improvement in the market conditions.

Yes, it is also an important factor. But 55 per cent from the internal efficiency parameter is a great effort. As you have mentioned in your remark that from the lesser number of employees, we are producing more. In SAIL, at one time, in the middle Eighties, we were 2,50,000 employees and at that time, we were producing 6 million tonnes, and now with 1,30,000 employees, we are producing 14 million tonnes. So, our labour productivity has almost gone up six times. It is a tribute to our workforce and our employees."

The Committee were informed that in future a situation may arise in which SAIL would have to buy iron ore at international market prices. In this regard, when asked as to how the 'market pricing of iron ore regime' impact the financial performance of SAIL, the Ministry in their written reply *inter alia* stated as follows:

"

If iron ore is not available from captive sources and is to be purchased from outside, the viability of expansion plans will get affected especially in view of the recent price trends of iron ore. In addition, availability of such huge quantity and quality of iron ore from market may be difficult on consistent basis supply of which is paramount important for maintaining the continuous production of blast furnaces. The financial impact of purchases from market would depend upon the level of price prevailing in the market from time to time."

CHAPTER-IV

RAW MATERIALS SECURITY

Iron ore, coking coal and thermal coal are the critical raw material inputs for the steel industry. The timely and assured availability in adequate quantity and quality on long term basis is *sine qua non* for the rapid and orderly growth of the steel industry.

1. Iron Ore

(i) Captive iron ore mining – Grant / Renewal of captive iron ore mining leases

Captive iron ore mining is essential for the raw material security of SAIL. Captive mining of iron ore refers to the allocation of iron ore mines to steel makers so that they can extract iron ore according to the needs of the steel unit and utilize the same in steel making without the intermediation of stand alone mining companies.

The Committee were informed that SAIL has some captive iron ore mines, of which Chiria Mine in South Jharkhand has the largest reserves of high quality iron ore in India. The Expansion Plan of SAIL envisages production of hot metal of 26 million tones by 2010 for which 43 MTPA iron ore is required. Chiria is the only chief potential resource with SAIL which can cater to the increased production requirements of SAIL steel plants. For brown field and green field expansion plan, the existing iron ore reserves with SAIL will not be sufficient. Apart from Chiria, SAIL would also require new iron ore resources to meet its growth plan.

The Committee had noted that SAIL had applied for renewal of Chiria iron ore mining leases from the State Government of Jharkhand. However, three out of six leases were rejected by the State Government during 2004-05. SAIL later submitted a revision application to mining tribunal. The mining tribunal quashed and set aside the rejection orders of Jharkhand State Government and directed the State to reconsider the renewal of leases. Against the mining tribunal order, State Government of Jharkhand filed a case in the hon. High Court of Jharkhand. Till date, 16 hearings have been held in Hon'ble High Court. After the hearing held on 22.8.07 and 23.8.07, Hon'ble High Court kept the judgment reserved. On 23.8.07, SAIL filed an interlocutory application seeking constitution of committee to resolve the mining leases dispute. Hon'ble High Court quashed the interlocutory application of SAIL on 24.9.07. SAIL filed a Special Leave Petition before the Hon'ble Supreme Court on 13.12.07 against the above order of Hon'ble High Court. During the hearing on

9.1.08, Hon'ble Supreme Court had granted stay on proceedings in Hon'ble High Court pertaining to case of renewal of mining leases in Chiria & Gua and directed the State Government to file reply on the Special Leave Petition (SLP) of SAIL. Meanwhile, SAIL/Ministry of Steel have been continuously taking efforts for amicable solution of this issue. In this regard, the Ministry of Steel in a note submitted the steps taken as follows:

- Secretary (Steel) held meeting with Government of Jharkhand regularly. The discussions were held on 13.4.05, 24.10.05, 8.12.06, and 2.1.08.

- On the request of Ministry of Steel, the Principal Secretary to the Prime Minister intervened and convened a meeting on 07.08.06 & 04.09.06 to resolve the issues of Chiria. The meeting was attended by Chief Secretary, Jharkhand, Secretary (Steel), Secretary (Mines) and Chairman SAIL. During the meeting, it emerged that out of the total reserves of 2 billion tonnes iron ore in Chiria and Gua mines :

a) The State Government will renew mining leases for reserves of about 1 billion tonne immediately.
b) For balance reserve of 1 billion tonne, SAIL & the State Government will sign an MOU and the State Government would release the reserves against SAIL meeting the milestones.

- Principal Secretary to the Prime Minister convened a meeting on 19.02.07 to review the status of implementation of the decisions taken in PMO on 04.09.2006. During the meeting, it was decided that Secretary (Mines), GOI will asses the requirement of iron ore for 50 years.

- Secretary, Ministry of Mines, Government of India convened a meeting on 16.4.07 to assess the requirement of iron ore for SAIL over fifty-year period. Chief Secretary, Government of Jharkhand, Secretary (Steel), Government of India and Chairman SAIL attended the meeting. Action points emerged out of the meetings are:

1. State Government to consider the inputs given by Ministry of Steel and SAIL, and send their comments on viability of allotting additional iron ore apart from the 1 billion tonne agreed to by the State Government.

2. Ministry of Steel would inform the State Government of Jharkhand about the revised estimate of iron ore requirement as against those given in the National Steel Policy, 2005.

- Vide its letter dated 6.6.07, Ministry of Steel, Government of India has conveyed the revised projection of iron ore requirement for Indian steel industry to Government of Jharkhand, as against those given in the National Steel Policy, 2005. The revised overall iron ore requirement by 2019-20 for a crude steel output of 175 million tones works out to 256 million tones.

- Hon'ble PM has also made a request vide his letter dated 13.8.07 to Chief Minister, Jharkhand to look into this matter personally to ensure its early resolution in the larger national interest.

- Hon'ble Chief Minister of Jharkhand has replied to Hon'ble PM vide his letter dated 3.9.07. The response of the State Government was not encouraging.

- Hon'ble Minister of Steel, vide letter dated 4.12.07 has requested Hon'ble Prime Minister to again take up the matter of renewal of leases of Chiria & Gua with Chief Minister, Jharkhand.

- Secretary (Steel) GoI, held discussions with Chief Secretary, Government of Jharkhand to assess the status of allocation of mining blocks to investors in the State of Jharkhand to achieve a steel capacity of 60-70 MTPA in the State of Jharkhand. During the meeting issue of Chiria leases was also discussed."

With regard to Chiria, the representative of Ministry of Steel further clarified as follows:

> " When so many private sector people started demanding new leases, the State Government thought that they would take away some of our leases and re-allot them to the private sector. That is the point of contention."

When asked as to why leases have been refused to SAIL and at the same time they are being given to private parties, the representative of Ministry of Steel during the oral evidence stated as follows:

> "The allocating authority can say about it. I cannot say anything on their behalf. I can only say that we have a legitimate case and we have not got it. "

SAIL in a post evidence note about Chiria issue submitted as under:

> "Justification for Chiria to remain with SAIL:
>
> Chiria has been property of IISCO for decades. It is worthwhile to mention that IISCO alongwith its Chiria and Gua iron ore mines, had been available for divestment from 1996-2001. However, not a single global/domestic player had shown any interest during the period. With amalgamation of IISCO with SAIL in 2005, SAIL had to absorb an accumulated loss of about Rs. 910 crores of IISCO. With the reversal in trend of steel market, new investors are eyeing on the deposits of Chiria, which is not considered appropriate.
>
> SAIL has already developed various infrastructures in Chiria and has been continuing with the mining at small scale. SAIL is ready with the plan for development of state-of-art mines at Chiria with latest technology which would be environment friendly. SAIL proposes to develop the Chiria mine to 7 MTPA by 2010, 40 MTPA by 2020. SAIL has already carried out the preliminary activities like preparation of DPR, preparation of mining plan, EIA/EMP study including completion of public hearing. Environment clearance proposals is awaiting clearance of Government of India.
>
> Early need of Chiria:

If leases of Chiria mine are not renewed immediately, SAIL will have serious problem in proceeding with modernization & expansion plan which have already commenced in full swing. Timely implementation of SAIL's growth plan to 26 MT by 2010 and about 60 MT by 2020 is in national interest to meet the infrastructural growth.

It is to be mentioned that considering the fast growing need of steel for the country, SAIL has preponed the implementation of its Corporate Plan for expansion of capacity to 26 MT by 2 years so as to complete by the year 2010 against original plan of 2012. SAIL Board has already accorded 'in-principle' approval for investment of over Rs. 40,000 crs. This necessitates the early need of development of Chiria mine. As per plan, Chiria mine is to be developed as a modern mechanized mine which generally takes 4 to 5 years as per any standard. Hence, it is must for SAIL to get Governmental clearances to start the developmental activities immediately.

Help required:

Considering above, Govt. of Jharkhand should agree with the decisions taken during meeting held in PMO on 4.9.06 as given below :

- To agree for renewal of mining leases for reserve of about 1 billion tonne immediately.

- To initiate actions for concluding MOU between SAIL and State Govt. for renewal of leases for balance 1 billion tonne. "

Regarding Captive Iron Ore Mining, the Ministry of Steel in their written reply have stated as follows:

"The iron ore mines are allocated in accordance with the provision of Mines and Minerals (Development & Regulation) Act, 1957 and Rules framed there under. The procedure for grant of mineral concession for iron ore provides for giving due weightage to technical worthiness of end use industry vis-à-vis stand alone miner at the time of grant of mineral concession.

A high level committee was constituted under the Chairmanship of Shri Anwar-ul-Hoda, Member, Planning Commission, to review the National Mineral Policy,1993 and recommend possible amendments to the Mines and Minerals(Development and Regulation)Act,1957. One of the terms of reference of the committee was to review the existing procedures for granting mineral concessions and suggest ways for their streamlining and simplification.

The committee has submitted its report to the Government. The proposal for implementation of the Report of the Hoda Committee with necessary modifications after taking view of State Governments, concerned Ministries of Government of India and as per decisions of the Group of Ministers is under consideration of the Government. Once the policy is finalized, its impact on the SAIL can be evaluated.

[Page 9, W.R. from Ministry]

The renewal of iron ore mining leases is of crucial importance for securing the iron ore requirements of SAIL. In this regard, while commenting on 'renewal of iron ore mining leases', the representative of M/o Steel during the oral evidence stated as follows:

> "The allotment of raw-material leases is now governed by the Mines and Minerals (Development and Regulation) MMDR Act in India. In terms of that Act, the primary role in allocation of mines rests with the State Governments. With their recommendation, it comes to the Ministry of Mines and a final view is taken. So, basically, it is the State Government which makes a sympathetic recommendation for getting our captive leases in hand.
>
> In the case of Chiria mines, as you are aware, the Ministry has been extremely pro-active at the level of Secretary (Steel) and also the Minister of Steel. A number of meetings have been taken by our officers as well as the hon. Minister. We are going to Jharkhand also. A number of formulations were posed to the Government of Jharkhand. They wanted some comfort regarding the green-field capacities within the State of Jharkhand itself. That was also indicated to them. But still it has not yet finally been resolved. That is where it stands now. The PMO also intervened. The Minister will again have another round of discussion. That is regarding Jharkhand."

(ii) <u>Development of Iron Ore Mines</u>

In order to ensure availability of iron ore for steel production, the development of iron ore mines is of paramount importance. The Committee are informed that the development of iron ore mines will depend on the renewal of captive iron ore mining leases and obtaining forest & environment clearances. .When asked as to what concrete steps have been taken for the development of mines, the management of SAIL in their written reply have inter-alia stated as follows:

> "Pending renewal of mining leases, steps have been initiated for development of new mines at Chiria, Rowghat, Thakurani, Taldih, South Block and Central Block and expansion and modernization of existing mines at Gua, Bolani, Barsua & Kalta.
>
> Kiriburu-Meghahatuburu
>
> Development of South and Central Block
> Environmental Clearance obtained on 27.12.06.
> Forestry Clearance proposals are under consideration by Jharkhand Government.
> Process initiated for modernization of existing processing plants for qualitative improvement.
>
> Bolani
>
> - Capacity enhancement from 3.44 MTPA to 5.65 MTPA
> - Environmental Clearance obtained on 4.12.07

- 600 Tonnes/hour plant commissioned
- Process for loading capacity enhancement initiated. Job is under progress

Taldih

- Feasibility report prepared on 03.02.2006.
- Mining Plan submitted to IBM for approval on 24.11.07.
- Environmental Clearance
- Environment Impact Assessment and Environment Management Plan under preparation.
- Submission of forest clearance proposal is under progress.

Chiria

Mining Plan of Ajitaburu is submitted to IBM for approval.
Public hearing completed on 29.12.06.
Expert Appraisal Committee (EAC) of MoEF has considered the environmental clearance proposal in Oct'07. MoEF has requested for further information/data. Work is progress.
Forestry Clearance proposals of Ajitaburu & Budhaburu leases are under advance stage of onward transmission to MoEF, GoI. Help needed to expedite the process.

Rowghat

IBM, Nagpur approved the Mining plan on 22.3.07.
Forestry Clearance proposal after getting favouarable recommendations of Forestry Advisory Committee (FAC) of MoEF is under consideration of Hon'ble Supreme Court. Help needed to expedite the process.
Environmental Clearance is under consideration of MoEF, Govt. of India.
For construction of Rail line from Dalli-Rajhara – Rowghat – Jagdalpur, an MoU has been signed between Railways SAIL, NMDC & Govt. of Chhattisgarh on 11.12.07.
For construction of the rail line, SAIL has already paid Rs. 53 crores as an advance to railways."

On being further asked as to how the higher requirement of iron ore would be met by 2010 without having a clear cut policy regarding development of mines, the SAIL in their written reply stated as follows:

"The delay in the renewal of mining leases and grant of forest and environment clearance is severely affecting the expansion plan of SAIL. As a result, development of new mines at Chiria, Rowghat, Taldih and Thakurani could not be effected by 2010-11."

On being asked as to remedial measures are being taken to improve the quality of iron ore, the management of SAIL in their written reply have stated as follows:

"Iron ore mines of SAIL were developed way back in 60s and 70s with the technology available at that time. SAIL has decided to modernize the processing/beneficiation plants of operating mines at Kiriburu, Meghahatuburu,

Bolani, Barsua and GUA. Moreover, new mines and beneficiation plants to be developed at Chiria, Rowghat, Taldih and Thakurani will have state-of-art technology to provide higher quality of iron ore. Beyond 2010-11, SAIL steel plants will receive better quality of iron ore."

The Committee were informed that SAIL is facing problems in getting environmental clearances for the development of iron ore mines such as Rowghat. When asked as to what steps have been taken by the Government to sort out this issue, Ministry of Steel in their written reply stated as under:

"Ministry of Steel has been providing support to SAIL for issues concerning forestry and environmental clearances. In this regard, meetings have been convened under the Chairmanship of Principal Secretary to Hon'ble Prime Minister on 4.10.05 and 29.05.06 for resolving the issue of forestry and environmental clearances for Rowghat mining project.

Ministry of Steel is in continuous dialogue with Ministry of Ministry of Environment and Forests, with respective State Governments and other nodal agencies to expedite clearances for the mines."

(iii) Export of Iron ore

Regarding the export of iron ore from India, the representative of Ministry of Steel stated that till 2003-04 iron ore was a surplus commodity and nobody was wanting any fresh leases. The Secretary, Steel, during the oral evidence further clarified as follows:

"Sir, as regards export of iron ore, the Ministry of Steel's view is this. This was considered by the Group of Ministers which has decided that we should try and conserve, but it should be through fiscal measures, not banning on export of iron ore. We have suggested that 10 to 15 per cent *ad valorem* duty should be levied on the export of iron ore. We believe that we should try and conserve iron ore as much as possible. But, at the same time, we do recognise at this stage that as against a production of 180 million tonnes or so, we export about 93 million tonnes. So, banning export of iron ore may not be a feasible solution. I think what we should try and do is to see that we put an export duty on this so that we try and conserve it as much as possible.

But, at the same time, I must also mention that as against the reserves in China of about 45 billion tonnes, our iron ore resources are much less and considering that quite a substantial part, about 85 per cent of our exports of iron ore are to China, I think there is a case for looking at this and see whether we should also, like other countries, conserve particularly so that we do not land up in a situation where, at a later stage, when we require steel we start importing iron ore. This is the point."

On being asked as to what steps have been taken for curtailing the excessive export of iron ore from India, the Ministry in their written reply have stated as follows:

> "There has been a very high level of export of iron ore from India. During 2006-07, India produced 180.66 million tonnes of iron ore, out of which 93.79 million tonnes was exported. While presently the production of iron ore is sufficient to meet both the domestic requirement as well as exports, the continued export of iron ore will affect the long term availability of iron ore for domestic steel production as iron ore reserves are limited and building up of more steel capacity domestically will require enhanced quantity of iron ore.
>
> An export duty of Rs.300./- per metric tonne on export of iron ore lumps and iron ore fines having Fe content 62% and above and Rs. 50/- per tonne on iron ore fines having Fe content less than 62% has already been imposed during 2007-08. The matter is further under consideration of the Government."

(iv) <u>Gainfull utilisation of Fine iron ore</u>

Iron Ore is of two types (i.e.) lump iron ore and fine iron ore. The Committee have been informed that the fine iron ore is not gainfully utilized by the Company particularly in respect of Rajhara and Dhalli mines of Bhilai Steel Plant. When asked as to comment, SAIL in their written reply stated as follows:

> "With the commissioning of Sinter Plant III (12th Dec.2001) the recovery of Iron Ore Fines from the old accumulated stocks commenced and the year-wise figures are shown below:"

Year	Quantity (Tonnes)
2002-03	626467
2003-04	569896
2004-05	1156291
2005-06	1439716
2006-07	655677

In 2006-07, there has been lower recovery of fines from old stock due to following:

> "As the Iron ore reserves are depleting, Silica content in Iron ore has increased, resulting into higher generation of fines. Generation of iron ore fines was more by 584240 Tonnes in 2006-07 in comparison to 2005-06. The despatch of the fines from current generation on a "last in first out basis" has resulted into lower usage of old fines.

In addition, production of hot metal was also lower in 2006-07 (as Blast Furnace 7 was under Capital Repair) resulting into lesser sinter requirement and so the lesser requirement of iron ore fines. This also affected the usage of old fines."

Production of hot metal, sinter, Iron ore lumps and fines is given below:

(unit in tonnes)

Year	Production			
	Hot Metal	Sinter	Iron Ore Lumps	Iron Ore Fines
2004-05	4511179	5740968	3246431	3626736
2005-06	5178269	6933199	3332729	3663679
2006-07	4816773	6647275	3326683	4247919

The stock of old fines at IOC Rajhara as on 01.04.2007 was 2824796 Tonnes. This stock is envisaged to be consumed in following manner :-

Year	Projected off-take of fines from old stock (Million Tonnes)
2007-08	0.244
2008-09	0.295
2009-10	0.244
2010-11	2.043*

*It is envisaged that by 2010-11, hot metal production shall be enhanced to 7.36 Million Tonnes.

On further being asked whether the Company has proposed to set up fines based steel plants in India, SAIL in their written reply stated as follows:

> "The company has not proposed setting up any 100% fines based steel plant in India. However, the company has planned higher usage of fines in its existing plants as well as new plants by enhancing the sinter and pellet usage for which the new sinter plants, pellet plants and up gradation of existing sinter plants are planned as part of the current expansion plan."

The Committee were informed that Finex and Corex technologies were commercialised for higher usage of fines. When asked as to whether SAIL is planning to introduce Corex and Finex technologies in further manufacture of steel and whether any R&D project has been undertaken in this regard, the Company in their written reply stated as under:

> "Alternate routes of molten hot metal production through processes like COREX, FINEX, HISMELT & ROMELT are being developed/commercialized elsewhere in the world. Out of these, COREX has been successfully commercialized and is in operation at JSW, India, POSCO Korea and SALDANHA & ISCOR South Africa. Other processes mentioned above are in the developmental/commercialization stage. These alternate routes of iron making are under examination for SAIL's Corporate Strategy beyond the year 2010."

2. Coking Coal

(i) Acquisition of Coking Coal Equity Abroad

Coking coal is the second most important raw material for the production of steel. Due to poor availability of indigenous coking coal from CIL, around 75% of the present requirement is being met by imports. The Committee were informed that due

to the shortage of coking coal, there was a decline in SAIL's production of saleable steel. In this connection when asked to give reasons as to why SAIL has not been able to set up joint venture coking coal projects with companies abroad, for sourcing coking coal in the last three years since the introduction of Growth plan in 2004 and the difficulties faced by SAIL in this regard, SAIL in their written reply stated as under:

> "SAIL has been keen to set up joint venture coking coal projects with companies abroad and has been making efforts in this regard consistently during the last three years. SAIL had participated in the disinvestment of 25% stake in the Tahmoor Coal Mine of M/s. Austral Limited in Australia. Due diligence of the mine was undertaken by a team of Merchant Banker / Advisor, Technical Consultant, Legal Consultant and a Tax Consultant. Senior officials of SAIL had also participated in the due diligence exercise. However, in the final analysis, it emerged that the performance of the Tahmoor Mine had been consistently lacking and output of coking coal, much in excess of its production, had already been committed to other buyers. Thus, the availability of coal from this coal mine for SAIL was limited. Further, the financial health of the company was very poor. A decision was, therefore, taken not to submit a final and binding bid for acquisition of stake in the mine.
>
> SAIL along with Coal India Limited had jointly participated for obtaining concession for the Moatize Mine in Mozambique. The Government of Mozambique awarded the concession to CVRD, a leading mining company from Brazil.
>
> SAIL has also explored possibilities of obtaining coking coal of suitable quality from countries like Russia and Poland. SAIL officials have visited these countries with a view to identification of suitable mines. In Russia, the mines are located at a distance of around 2500 kilometres from the nearest seaport, thereby making inland transportation, a major drawback as well as a significant component of cost in the movement of coal from the mines to the ports. Investments in the mines in Russia are also fraught with various risks. There are complexities in the grant and operation of licences for coal mining between federal and regional governments. Weather conditions, particularly in Siberia where the available coal mines are located, are not conducive to mining round the year.
>
> SAIL has registered its interest for participation in the privatization of government owned coking coal mines in Poland. However, the Polish Government has for the time being put the privatization process on the hold.
>
> SAIL had issued an open Expression of Interest (EoI) on 7th January, 2006 inviting overseas coal mining companies to offer equity stakes to SAIL in their coal mines/ projects. Two serious offers were received in response to this EoI. M/s.Excel Coal, Australia had offered equity stake to SAIL in their Millenium Coal Mine Project. Soon thereafter, Excel Coal was taken over with all its assets by M/s. Peabody Energy, Australia. The other offer was received from a Canadian Company. A trial shipment of this coal was obtained. After

industrial scale trials in the steel plants, this coal has not been found suitable for use on long term basis.

Due to the overall upturn in the steel industry, the mining industry has also witnessed an unprecedented boom resulting in very few offers for equity participation by overseas companies in coking coal mines. The coal mining industry, particularly in Australia has witnessed a process of consolidation where the five or six big companies have taken over the smaller mining companies. Most coal mines in Australia are under a joint venture arrangement with Japanese Trading Houses. Partners in such joint ventures have pre-emptive rights and in the existing buoyant market conditions do not wish to dilute their equity stakes in favour of other partners. Dialogue with existing coal companies has revealed that they are in the 'acquisition mode' rather than in the 'disinvestment mode'.

SAIL is, however, making all efforts to identify suitable opportunities, where coal meeting the quality parameters required for blending with indigenous coals could be pursued and clinched.

The Ministry of Steel is considering a proposal to form an SPV (special purpose vehicle) for securing coking coal from foreign countries. SAIL is also one of the proposed members amongst other PSUs like RINL and CIL etc."

On further being asked as to whether any concrete results have been achieved by SAIL with regard to "exploratory talks" with several coking coal-mining companies outside India such as BHP-Billiton etc., the reply of the Company was as under:

"SAIL has formally communicated its interest for acquisition of minority equity stake in existing or new mine development projects of the existing long term suppliers of coking coal in Australia and New Zealand. Most companies have expressed their inability to offer equity to SAIL as their existing joint venture partners have pre-emptive rights and are not willing to reduce their stake/ control over the mines as well as the leases of mines which are to be taken up for development. SAIL is, however, pursuing the matter with these long term suppliers.

SAIL has also issued an open Expression of Interest (on 19th February, 2007) inviting overseas coal mining companies to offer equity/ ownership interest in coking coal assets in overseas territories. The response to this Expression of Interest has been lukewarm. Some offers have been received for development of Greenfield properties. No prospecting has been done in such properties as yet. It is, therefore, difficult to assess the quality of coal that would come out from such mines. Such opportunities would be further explored by the proposed SPV of SAIL, CIL, RINL, NTPC and NMDC. The core competence of Coal India Limited would be utilized for exploration, development and operation of such Greenfield coal blocks and assets."

When asked as to what steps have been taken by the Government in facilitating acquisition of coking goal equity abroad, the Ministry in their written reply have stated as follows:

"The Government of India has given its approval for formation of a Special Purpose Vehicle (SPV) with SAIL, CIL, RINL, NMDC and NTPC as the participating member companies for the purpose of acquisition of coal assets/mines/ companies in overseas territories. The SPV would have an initial equity base of upto Rs.3,500 crores.

The main objectives are to ensure secured supply of imported metallurgical coal i.e. around five million tonnes per annum as a medium term target to be achieved by 2011-12. Steel Authority of India Ltd., (SAIL), Rashtriya Ispat Nigam Ltd., (RINL), Coal India Ltd. (CIL), National Thermal Power Corporation (NTPC) and National Mineral Development Corporation (NMDC) are all equity participants from the Public Sector in this SPV which would have autonomy and freedom currently accorded to a Navaratana company without the formal Navaratna status. The follow up process for formation of SPV is actively in progress."

When asked as to where premium-coking coal is procured from, especially in the light of the expansion plan and proposal for setting up two new steel plants, the Company in their written reply stated as under:

"The main source for premium coking coal would continue to be Australia. Small quantities would be sourced from New Zealand, USA and Canada. New sources likely to come up in future would be Mozambique and Indonesia."

(i) Long term agreement of duration up to 15 years are being planned in the light of our increasing imported coal requirement.

(ii) The proposed SPV would target to (i) acquire virgin coking coal mining blocks / tenements which could be explored and developed into coal mines giving substantial annual output; (ii) acquire equity in coal companies willing to offer equity on their own in return for guaranteed off-take agreements; invest in equity of coal companies through market operations; and (iii) enter into strategic arrangements with coal companies merely for long term supply arrangements.

Since the proposed SPV would be set up with only a single agenda i.e. source coal for meeting the requirements of the promoter companies, it is expected that it would meet with reasonable success."

(ii) <u>Tapping new resources of coking coal within India</u>

On being asked as to what steps have been taken by the Ministry to tap new resources of coking coal within the country, the Ministry have in their written reply stated as follows:

"As per Corporate Plan of SAIL, its hot metal capacity will increase to 26.2 MT by 2010-11 which will result in increase of coking coal requirement to the tune of 23 MT by 2010-11 against present requirement of around 15 MTPA. Due to poor availability of indigenous coking coal from CIL, around 75% of the present requirement is being met by imports.

In order to reduce dependence on imported coal, SAIL has planned to increase domestic availability of coking coal to the level of 8-10 MTPA by 2014-15. In this regard, SAIL is looking at opportunities for acquiring new coking coal blocks for development as well as entering into partnership with BCCL (a subsidiary of CIL) by funding their projects. SAIL also contemplates developing medium coking coal blocks in joint venture with Tata Steel. Steps taken by SAIL in this regard are as follows :

Development of New Coal Blocks:

Tasra Coking Coal Block: Tasra Coking Coal Block having 252 MT reserves was allocated to SAIL by Ministry of Coal in the year 1996, however lease was transferred from BCCL to SAIL in the year 2002.

Small scale mining in Sector-II is planned to start by June'08 after grant of Environmental Clearance.

For development of large open cast mine, Project Report for 2-3 MTPA capacity is being prepared by CMPDIL after which EOI will be issued to select a suitable Mine Developer cum Operator. Production from large open cast mine is likely to start by April'2010.

Sitanala Coking Coal Block: Sitanala block having 108 MT geological reserves has been allocated to SAIL in April'07 for captive mining.

Compliance of statutory formalities for transfer of lease is in progress. CMPDIL has been engaged for preparation of Project Report. Production from the block is scheduled to start by April'2011.

Partnership with BCCL**:**

Development of Moonidih Seam 16 Top – SAIL has entered into an MOU with BCCL in April'06 to provide interest-bearing fund to the tune of Rs. 166 Crores for upgradation of its seam 16 Top of Moonidih mine. Entire output of about 0.66 MTPA (ROM) from the scheme would be for the captive use of SAIL plants. BCCL has issued global tender for selection of equipment supplier cum operator.

Development of Moonidih Seam 15 - Seam 15 of Moonidih mine of BCCL is planned to be developed for 2 MTPA capacity. SAIL has agreed to fund this scheme also in line with funding of development of Moonidih 16 Top seam.

Kapuria Block – The Block has a mineable reserve of about 37 MT, which can be developed into a modern mine of about 2 MTPA capacity. SAIL is in dialogue with BCCL, CIL & Ministry of Coal for development of this mine in joint venture with BCCL.

Partnership with Tata Steel**:**

Development of medium coking coal blocks – SAIL has entered into an Agreement with Tata Steel for formation of a Joint Venture Company for coal

mining. Initially, a joint working group of SAIL & Tata Steel has identified four medium coking coal blocks in CCL command area for joint development."

When asked as to why there is need for joint venture in coal mining despite India being a leader in coal mining, the representative of Ministry of Steel during the oral evidence deposed as follows:

"As far as the coal is concerned, basically coking coal is with Bharat Coking Coal Limited, which is a subsidiary of the Coal India Limited. Now, their financial health has not been very good over the years, and they have not been investing in the new mines for increasing the capacity of the coking coal. So, we want to collaborate with the Coal India Limited through a joint venture or through some other arrangement where we can lend those funds. If they have been having financial constraints in investing in the coal mines, we being the users will guarantee the off take from them on a long-term basis; we will also come up with the fund support so that new coal mines can be developed and we reduce our dependence on imported coal. That is the idea of our joint effort."

3. Thermal Coal

Thermal coal is another important raw material required for operating captive power plants. Regarding the need for acquiring thermal coal blocks by SAIL, the management of SAIL in their written replies stated as follows:

"SAIL has captive power plants for generation of electricity for its use. About 800 MW is being generated to meet partial inherent requirement of steel plants. Future projections of power demand & thermal coal requirement:

Sl. No.	Items	2009-10	2016-17	2019-20
1.	Hot Metal(Million Tonnes)	25.0	46.5	60.0
2.	Power demand(MW)	1675	3091	3996
3.	Captive generation capacity(MW)	2082	3957	5207
4.	Capacity addition (MW)	1250	1875	1250
5.	Thermal Coal reqt. (Million Tonnes)	18	33	43

With implementation of Corporate Plan, SAIL's power requirement will increase substantially. In order to meet power demand, additional 1250 MW generation capacity is being added to enhance the total captive power generation capacity to 2082 MW by 2010. This will lead to increase in thermal coal requirement to around 18 MTPA against the present 4-5 MTPA. Beyond this and upto 2019-20, the thermal coal requirement for captive power plants shall rise to about 43 MT.

Plans are in place for addition of 500 MW capacity each at Bhilai and Bokaro Steel Plants and also, planning is being done for an addition of 250 MW at Rourkela Steel Plant.

In order to ensure security of thermal coal availability, SAIL along with its two Joint Venture Power Companies had submitted 18 applications to Ministry of Coal for allocation of thermal coal blocks. However, none of the

blocks have been allocated to SAIL. SAIL has again renewed its request to Ministry of Coal for allocation of thermal coal blocks.

Considering the above, SAIL may be allocated 2-3 thermal Coal Blocks with reserves of about 1200-1500 million tonnes to meet the captive coal requirement for the next 30 years. " [Page 2 of P.E.R. of SAIL]

The management of SAIL have in their post evidence written replies have further submitted as follows:

"SAIL does not have adequate thermal coal deposits to meet its huge thermal coal requirement of 5 million tonnes annually for operating captive power plants. The requirement of SAIL will further increase significantly to 18 million tones by 2010. Considering the thermal coal requirements, SAIL should be allocated adequate reserves of thermal coal mines like other competitors. After bringing all companies at par, the process of competitive bidding may be considered.

However, bidding for mining leases of coal blocks will hurt the interest of PSUs due to following reasons:

- In case of the bidding process, the production costs of the mineral will increase, thereby affecting SAIL's competitiveness, both in domestic and international market.
- Also by resorting to the bidding route, PSUs will be in a disadvantageous position against its private counterparts due to the risk involved and the prevailing complexities of governance / procedures.

Hence, the environment is not conducive for bidding/auction of mining leases.

Incidentally, it is to mention that SAIL never had a coking coal block except with erstwhile IISCO steel plant, a small reserve at Chasnalla."

When asked as to what steps have been taken by the Ministry of Steel to pressurize the Coal Ministry for allocation of thermal coal blocks to SAIL, the Ministry if their written reply have stated as follows:

"With implementation of Corporate Plan, SAIL's power requirement will increase substantially. In order to meet power demand additional 1250 MW generation capacity is being added to enhance the total captive power generation capacity to 2082 MW by 2010-11. This will lead to increase in thermal coal requirement to around 18 MTPA against the present 4-5 MTPA.

In order to ensure security of thermal coal availability SAIL along with its two Joint Venture Power Companies had submitted 18 applications to Ministry of Coal for allocation of thermal coal blocks. However, none of the blocks have been allocated to SAIL.

SAIL has again renewed its request to Ministry of Coal for allocation of thermal coal blocks. Ministry of Steel has also taken up the issue with Ministry of Coal."

CHAPTER-V

EXPANSION & MODERNISATION PROGRAMME

Corporate Plan-2010

The Committee were informed that SAIL has embarked on an expansion and modernisation programme involving total investment exceeding Rs.50,000 crores. The expected outcome of the Expansion Plan also called as Corporate Plan-2010 include enhancement of production capacity & market share; world class technology & products; international levels in productivity and energy efficiency; improved product mix/ proportion of value added products; enhanced environmental conservation etc.,

The Corporate Plan of SAIL is as follows:

> "SAIL drew its Corporate Plan 2012 in 2004, outlining the growth path of its integrated steel plants. Initially the company aimed at increasing its hot metal production to 20 MT by 2012 from a level of about 13 MT in 2004-05. However, with the amalgamation of IISCO and preparation of expansion plans for special steel plants, the targets were revised to 22.5 MT for 2012. During the detailing of expansion plan of SAIL, SAIL's annual production plan has been further revised to 26 MT of hot metal.
>
> The growth programme, envisaged as per SAIL corporate plan, originally was planned to be completed by 2012. However, the schedules have been compressed to 2010 to derive early advantage on investments.
>
> The Corporate plan envisages annual growth rate return of more than 8% CAGR during the plan period. Besides capacity enhancement, the growth plan adequately addresses the need of SAIL plants towards eliminating technological obsolescence, energy savings, enriching product mix, pollution control, developing mines & collieries to meet higher requirement of key inputs, to introduce customer centric processes and matching infrastructure facilities in the plant to support higher production volumes. This would also help in attaining cost and quality competitiveness, along with growth.
>
> With this growth, the production of hot metal, crude steel and saleable steel will increase to 26 MT, 24.5 MT and 23 MT respectively from the existing level 14.6 MT of hot metal, 13.5 MT of crude and 12.6 MT of saleable steel."

To a question as to whether the Company has got adequate funds for modernization of existing facilities and what is the extent of inadequacy of funds and how are they proposed to be mobilized, the SAIL in their written reply stated as follows:

> "The financing of investment would primarily come from internal resources and if required, to meet the balance fund requirement, market borrowing will be

resorted to. However, efforts would be made to keep the overall debt to equity ratio up to 1:1. No budgetary support is envisaged at present."

On further being asked as to how it is proposed to complete the setting up of new facilities as envisaged as part of the Corporate Plan-2010 within the stipulated time schedule i.e. by 2010, SAIL in their written reply stated as under:

"SAIL has taken up many measures to complete the Expansion Plan in time. In order to expedite the tendering process, many proactive steps have been taken up as indicated below:

- Strengthening of project organization with fresh recruitment of experienced engineers and transfers of officers from other departments.
- Standing Committee of Directors constituted to address the issue of coordination across plants in implementation of Expansion Plans of SAIL.
- Repackaging by breaking into supply, civil, structural & auxiliary packages for wider participation.
- Interactions with Global Suppliers for obtaining their views.
- Modifications in various terms & conditions of tender.
- Based on difficulties faced in finalizing tenders at ISP/SSP, corrective actions has been taken in other plants.
- Across the table discussions for faster tender processing.

In addition, all the activities under control of SAIL are being completed expeditiously. Wherever, tenders have been finalized, plants have ensured issue of letter of intent within a week of final approval. Further, to accelerate the implementation process, the draft contract is now being prepared by SAIL itself instead of the earlier practice of getting the draft contract from the contractor which was taking a couple of months."

When asked as to what steps are being taken by the Government towards monitoring the progress of SAIL's Expansion Plan 2010 and whether any mid-term review of the Corporate Plan was made, the Ministry of Steel in their written reply stated as follows:

"(i) The expansion plans of SAIL are intensively reviewed by Secretary (Steel) and Hon'ble Steel Minister at regular intervals. In such reviews, it has been decided that efforts are to be directed to complete the expansion plan by 2010, instead of the originally planned 2012. The growth programme envisaged as per SAIL's Corporate Plans are now known as the "Expansion & Modernization plan" of SAIL.

The individual projects are monitored in SAIL by the Plant Level Standing Committee comprising of Head of Projects, Head of Works and Head of Finance on a monthly basis. This Plant Level Standing Committee submits its action plan to the Managing Director/Chief Executive of the Plant for remedial actions, if any, to be taken to ensure that the projects are completed in time. The Managing Director/Chief Executive of the Plant reviews the projects every month for timely action to complete the projects on schedule. A

Board Sub-committee, comprising of two independent Directors, Director (Technical) and Managing Director of the Plant, has been constituted to review the major projects (Rs.100 crore and above) on a quarterly basis.

(ii) SAIL drew up its Corporate Plan in 2004, outlining the growth path of its integrated steel plants. Initially the company aimed at increasing its hot metal production to 20 MT by 2012 from a level of about 13 MT in 2004-05. A review exercise was taken in 2005. It was decided that special steel plants and IISCO should also be part of the growth plan. Accordingly, the output target was revised to about 23 MT by 2012. Furthermore, during the detailing of expansion plan of SAIL, SAIL's annual production plan has been further revised to 26 MT of hot metal by 2010-11."

The Committee were informed that the Corporate plan-2010 of SAIL envisages developing mines & Collieries to meet higher requirement of key inputs. When asked about the details of investment made in developing mines & collieries in the last five years, SAIL in their reply stated as under :

"Capital investment made on SAIL mines for the last five years is as under:

Year	Amount (Rs/Crore)
2002-03	19.88
2003-04	28.03
2004-05	36.58
2005-06	48.04
2006-07	24.69

On further being asked to give details about the allocation made in the Corporate Plan-2010 for developing mines and collieries,SAIL in their reply stated as under:

"Regarding expenditure for mine development, SAIL has mine-wise broad development plans. However, the implementation of plans is not progressing well on account of delays in getting mining leases & clearances for forests etc.

Though Corporate Plan of SAIL envisaged an investment towards mines & collieries, exact amount will be worked out after all clearances & preparation of DPR for each mine."

As regards the problems / difficulties being faced in the implementation of Corporate Plan-2010, the CMD of SAIL during the presentation before the Committee stated that the non-renewal of mining leases at Chiria and Gua mines by Jharkhand, delay in grant of prospecting license to Thakurani iron ore mine, delay in obtaining clearances for Rowghat iron ore mining project in Chattisgarh, non-allocation of thermal coal blocks to SAIL for captive power plants, inadequacy of rail network, ports etc are the key concerns in the implementation of Corporate plan.

On the issue of non-renewal of Chiria leases, SAIL in their post-evidence reply stated as under:

> "If leases of Chiria mine are not renewed immediately, SAIL will have serious problem in proceeding with modernization & expansion plan which have already commenced in full swing. Timely implementation of SAIL's growth plan to 26 MT by 2010 and about 60 MT by 2020 is in national interest to meet the infrastructural growth.
>
> It is to be mentioned that considering the fast growing need of steel for the country, SAIL has preponed the implementation of its Corporate Plan for expansion of capacity to 26 MT by 2 years so as to complete by the year 2010 against original plan of 2012. SAIL Board has already accorded 'in-principle' approval for investment of over Rs. 40,000 crs. This necessitates the early need of development of Chiria mine. As per plan, Chiria mine is to be developed as a modern mechanized mine which generally takes 4 to 5 years as per any standard. Hence, it is must for SAIL to get Governmental clearances to start the developmental activities immediately."

Regarding the status of Forest clearance and Environmental clearance for Rowghat iron ore mining project in Chhattisgarh, the CMD of SAIL during the presentation before the Committee stated as under :

- "Forestry Clearance proposal after getting favouarable recommendations of Forestry Advisory Committee(FAC) of MoEF is under consideration of Hon'ble Supreme Court. Help needed to expedite the process.
- Environmental Clearance is under consideration of MoEF, Govt. of India.
- For construction of Rail line from Dalli-Rajhara – Rowghat –Jagdalpur , an MoU has been signed between Railways SAIL, NMDC & Govt. of Chhattisgarh on 11.12.07.
- For construction of the rail line, SAIL has already paid Rs. 53 crores as an advance to railways."

On the issue of non-allocation of thermal coal to SAIL for captive power plants, SAIL in their post-evidence written reply stated as under :

> "With implementation of Corporate Plan, SAIL's power requirement will increase substantially. In order to meet power demand, additional 1250 MW generation capacity is being added to enhance the total captive power generation capacity to 2082 MW by 2010. This will lead to increase in thermal coal requirement to around 18 MTPA against the present 4-5 MTPA. Beyond this and upto 2019-20, the thermal coal requirement for captive power plants shall rise to about 43 MT.
>
> Plans are in place for addition of 500 MW capacity each at Bhilai and Bokaro Steel Plants and also, planning is being done for an addition of 250 MW at Rourkela Steel Plant.
>
> In order to ensure security of thermal coal availability, SAIL along with its two Joint Venture Power Companies had submitted 18 applications to Ministry of Coal for allocation of thermal coal blocks. However, none of the blocks have

been allocated to SAIL. SAIL has again renewed its request to Ministry of Coal for allocation of thermal coal blocks.

Considering the above, SAIL may be allocated 2-3 thermal Coal Blocks with reserves of about 1200-1500 million tonnes to meet the captive coal requirement for the next 30 years."

The Committee noted that SAIL is having some problem with the procurement of equipments for their expansion plan due to a situation of monopoly in the supply of equipments. In this regard, SAIL is facing some difficulties about procuring equipments from Germany and other places. When asked as to what are the problems and whether it is the lack of planning in the Ministry in taking interest in helping SAIL, SAIL in a written note submitted as under:

"After tendering, SAIL is getting poor response from the bidders, more so in technological packages like Blast Furnace (for iron making), Basic Oxygen Furnace (for steel making), Universal Section Mill and Wire Rod Mill, where, either a single bid or two bids have been received. Due to the inadequate response by the bidders, the prices quoted in case of a single tender (like M/s SMS Demag, Germany for Basic Oxygen Furnace) are mostly exorbitantly higher than the estimated prices of the package. In case of two bidders also, due to lack of competition, prices are higher than the estimates. Further, the experience of tendering indicates that in many cases, more than two extensions have been asked for by the bidders even after giving sufficient time for bidding. Due to these extensions, the normal period of 45 days in submission of the bids have got extended by more than 60 days, thereby the time in finalizing the tenders are also getting increased. This has a cascading effect on the completion of the package and overall completion of expansion plan.

SAIL had discussions with the bidders and it emerged that due to global expansion of steel plants all over and the technology suppliers being limited in case of steel industry, the bidders are unable to participate in the SAIL tenders in time and also are reluctant to take up further jobs. Also, during the recession phase (1997-2003), many mergers and acquisitions took place limiting the number of technology/ equipment suppliers."

When asked as to how far the existing 'National Mineral Policy' is conducive to the expansion of steel PSUs such as SAIL, the Ministry of Steel in the written reply stated as under:

"The growth plan of SAIL largely depend on the development of new mines and expansion of existing mines of iron ore, coal, limestone, dolomite etc. The investment in capacity expansion of SAIL is based on the assumption that existing leases would be renewed and new leases would be granted for a considerable period (say 50 years or more) so as to ensure security of supplies of the input raw materials. In view of considerable time taken for

obtaining clearances / renewals, the present policy and procedures are not very conducive to SAIL for its raw materials security.

A committee under the Chairmanship of Shri Anwar-ul-Hoda, Member, Planning Commission, has submitted its draft report on new mineral policy, simplification of procedures for grant of concessions etc. Its impact on SAIL can be evaluated after the policy is finalized."

.

CHAPTER-VI

NEW STRATEGIC INITIATIVES

(i)Mergers / Acquisition of Steel PSUs

Consolidation by way of mergers and acquisitions is taking place in steel industry in India and abroad. Mergers and acquisitions of steel plants results in the build up of giant steel companies. This results in cut in cost of production and securing raw materials. In this regard, when asked as to whether SAIL is also planning to acquire such steel plants elsewhere in the world, the representative of Ministry of Steel during the oral evidence stated as follows:

> "On mergers and acquisitions, yes you are right that there are some players who have acquired some units abroad, especially Tata Steel has acquired Cores. Here our submission is that the country needs more steel. Now the demand here is growing at the rate of 12 to 14 per cent. Our resources are not unlimited. We fix the priority that we should expand within the country because we have brown-field infrastructure. So, we are expanding in all our steel plants because the country will need more steel. If I acquire a steel unit abroad, that steel will remain there; it is not going to help our country. We have made a very ambitious expansion plan to put our resources within the country to grow. We are growing organically. That is our submission."

As regards merger of steel PSUs within India, the Committee sought to know the views of SAIL regarding consolidation / merger of RINL with SAIL. In this regard, SAIL in their written reply stated as follows:

> "Consolidation/merger of steel PSUs will help PSUs to acquire global size of operation in order to attain global scale and synergize operation and bring down cost of production.
>
> In this regard, merger of SAIL & RINL would lead to the emergence of SAIL as a giant steel PSUs to take on MNC companies. This will also bring down marketing costs and administrative cost apart from other costs of operations. A merger of SAIL with RINL was contemplated, but this will be pursued only if a consensus is reached on this issue. "

On being asked as to what is the latest status of the proposed merger of RINL with SAIL, the Ministry in their written reply have stated as follows:

> "The proposal for merger of RINL with SAIL is not presently under active consideration."

As regards, the merger of small steel PSUs with SAIL, the Committee sought to know what is the stand of the Government with regard to merger of Neelachal Ispat Nigam Limited with SAIL, the Ministry in their written reply have stated as follows:

> "Draft CoS notes for merger and acquisition of NINL with SAIL has been prepared and sent to Department of Disinvestment, Department of Commerce and Government of Orissa on 20.12.2007 to offer their comments / views. Reply from Department of Disinvestment has been received. Reminder has been sent to the Department of Commerce and Government of Orissa."

The CMD of SAIL during the presentation before the Committee stated that the proposal for merger of MEL with SAIL is also under the active consideration of the Government.

(ii) Setting up of new steel plants

As per the information furnished to the Committee, the Company intends to set up two new steel plants in the State of Jharkhand and the other in the State of Chhattisgarh as a joint venture. In this regard, SAIL in their written reply stated as under:

> "New Steel plant at Jharkhand: SAIL appointed MECON as consultant for green-field project in Jharkhand. MECON has submitted a report, a copy of which has been submitted to the State Government. Consent of State Government is awaited for signing of MOU. A detailed time frame for setting up of the steel plant would be firmed up after signing of MoU with the State Government for which report of State Government is awaited.
>
> Chhattisgarh: For the proposed new joint venture steel plant in the State of Chhattisgarh, an MoU has been signed in August'07 between the three promoter companies i.e. SAIL, RINL and NMDC. M/s. MECON Ltd. have been appointed as the Consultant to prepare a (i) Site Selection Report; and (ii) Project Proposal Report. The Site Selection Report of MECON is expected shortly. Based on the recommendations made by MECON in the Site Selection Report, a decision would be taken on how to progress further with the project including issues relating to land acquisition and allocation of captive iron ore deposits by the State Government of Chhattisgarh.

When asked as to whether the Company has fixed/ proposed to fix any time frame for the setting up of the two new steel plants, SAIL in their written reply stated as under:

> "SAIL is all set to implement both the projects in the shortest possible time once government approvals & clearances on land, mining leases etc are obtained from the respective state governments."

On further being asked as to whether any feasibility study for setting up of new steel plants in Jharkhand and Chattisgarh has been taken up, SAIL in their written reply stated as under:

> "For the green field plant in Jharkhand, M/s MECON has prepared an Approach Note and Project Viability Report. The consultant has suggested that

SAIL may initially plan to set up an integrated steel plant of capacity 6.2 Mt/yr crude steel, which may be increased further to 12.4 Mt/yr of crude steel. A copy of this report has been submitted to the State Government. SAIL is awaiting consent of State Government on this project.

For the proposed JV Integrated Steel Plant in Chhattisgarh, MECON has been appointed as the Consultant for preparation of Site Selection Report and Project Proposal Report. Based on further discussions with Government of Chhattisgarh and the promoter companies regarding availability of land and iron ore mines, a detailed Feasibility/ DPR would be ordered for preparation."

To a question as to why SAIL wishes to enter into joint ventures for the setting up of two new steel plants and whether any prospective JV partner has been identified, SAIL in their written reply stated as under:

"The proposed green-field plant at Jharkhand is to be developed by SAIL and not in Joint Venture. However, the Integrated Steel Plant proposed to be set up in the State of Chhattisgarh, would be under a joint venture arrangement between SAIL, RINL and NMDC with equal partnership by all the three promoters. While SAIL & RINL will provide expertise in steel making technology and plant operations, NMDC will provide expertise in mining activity."

On being sought to know the proposal to fund the setting up of two new steel plants in India, reply of the Company was under:

"New Steel plant at Jharkhand– Pursuant to State Governments approval on the project, SAIL plans funding through internal accruals as well as external borrowings. The linkages of iron ore shall be mainly from Chiria and other captive mines. Coking coal requirements shall be met through mines in Jharkhand as well as imports.

Chhattisgarh**:** The JV Integrated Steel Plant in Chhattisgarh is intended to be funded on a debt : equity structure of 2:1. Contribution to the equity of the JV – Intergrated Steel Plant (ISP) would be through investment in the equity of the company by the promoters from their own funds.

Also, the promoters are impressing upon the State Government to allocate suitable and adequate iron ore reserves to take care of 50 years iron ore requirement of the proposed ISP. Preliminary discussions with the State Government officials have indicated that the State Government does not have any known reserves of iron ore for allocation to the JV ISP for prospecting and development."

In a post evidence note regarding setting up of new steel plant at Chhatisgarh, the Ministry of Steel stated as under:

"Recently in a meeting held under the chairmanship of Hon'ble Steel Minister on 13 March 2008, after discussing various options it was suggested that NMDC could consider taking up the equity investment for the new steel plant

since they both have adequate cash reserves for the purpose as well as easy access to the primary raw material viz. iron ore.

In sum, the following decision were taken:

(i) NMDC and its Board would immediately consider the possibility of setting up an integrated steel plant at a suitable location with strategic advantages; keeping in view their linkage with iron ore reserves and the availability of investable surplus, subject to approval by its Board. This steel plant could be of 3 MTPA capacity.

(ii) Keeping in view the need to ensure early implementation of the project, the suggestion of implementing it on a turn-key basis could be considered by the NMDC.

(iii) Since NMDC did not have the experience and expertise of setting up steel plants, they could consider the following possibilities:

(a) Engaging an experienced consultant like MECON with experience in the design and construction supervision of steel plant.

(b) NMDC could also consider engaging a steel-making PSU like RINL for actual supervision of the construction and could also enter into marketing tie-ups with RINL to make use of their distribution machinery for the produced steel."

CHAPTER VII

MARKETING

The information furnished by SAIL as regards the marketing activities including the various products marketed by SAIL is as follows:

"Long Products

During the year 2006-07, the apparent consumption of finished long products was over 19.6 million tonnes 45% of total finished steel consumption. Domestic industry comprises of 3 main producers i.e. SAIL, RINL and TISCO. These main producers accounted for approx. 34% of the market share of finished long products. In addition there are a large number of secondary producers commanding over 64% of the market share. Apart from this, imports of high value structurals, bars & rods constitute 2% of the market share. SAIL had a market share of 14.4% in finished long products during 2006-07 in the domestic market.

Flat Products

During 2006-07, the apparent consumption of finished flat products was 24.1 million tonnes constituting 55% of the total finished steel consumption. In case of flat products, SAIL has a share of approx. 28% in the domestic market. In case of plates and HR Coils, TISCO, ESSAR Steel, Ispat Industries, JSW, Lloyd Steel are the major competitors. SAIL is the pre-dominant player for plates in the domestic market. The major competitors for CR Coils / Sheets are TISCO, ESSAR, Uttam, Bhushan and various other cold reducers. Apart from SAIL, GP/GC Sheets are being produced by a host of other players including TISCO, Bhushan, JSW, Uttam, National, Shree Pre-coated, etc. in the private sector.

- In order to assess the requirement of steel for various sectors including building / construction sector and evolve a sales plan attuned to the market conditions, a detailed exercise is undertaken before the commencement of each financial year which inter alia include plantwise, productwise, segmentwise sales plan keeping in view the demand and supply scenario in the country as well as production capability of each of the plants of SAIL.

The sales of steel by SAIL, of various products used in building / construction activities, during the last 3 years is as under :

000 tonnes

Product	2004-05	2005-06	2006-07
TMT/RTS	693	691	888
Structurals	584	650	722
Plates	1998	2057	2261
GP/GC Sheets	289	285	269

SAIL has also stepped up sales of products like TMT/RTS and Structurals (which mainly go into the construction sector) by 28% and 24% respectively in the last 3 years. There are also products, where the secondary

sector has a much larger share of the market. As stated, SAIL is not the major player in finished long products in the domestic market during 2006-07."

The Committee note that SAIL is not the major player in finished long products in the domestic market during 2006-07. When asked to give reasons as to why SAIL could not be a major player in this field, SAIL in their written reply stated as follows:

"As per provisional estimates of JPC, during the year 2006-07, the apparent consumption of finished long products was over 19.6 million tonnes, which was 45% of total finished steel consumption. Domestic industry comprises of 3 main producers i.e. SAIL, RINL and TISCO. These main producers accounted for approx. 34% of the market share of finished long products. In addition there are a large number of secondary producers commanding over 64% of the market share. Apart from this, imports of high value structurals, bars & rods constitute 2% of the market share. SAIL had a market share of 14.4% in finished long products during 2006-07 in the domestic market.

Finished Long products market constitutes mainly of Bars and Rods (including TMT bars), Structurals and Railway materials. While SAIL constitutes over 90% share of Railway materials, market share of SAIL in Bars & Rods and Structurals is around 8% and 19% respectively. Due to requirement of relatively low capital investment as compared to Flat Products, in Long Products, there are many re-rolling mills with small capacities which account for more than 65% of market share for Bars & Rods and over 71% for Structurals. Although SAIL's share during 2006-07 was 14.4 % there was no single producer which accounted for a larger market share. Production of finished Long Products by SAIL during 2006-07 was 2.91 million tonnes and sales were 2.86 million tonnes. SAIL could market almost entire production of its' finished long products."

To a question as to what steps have been taken to improve the market share of SAIL in an expanding steel market in the last two years and details of future marketing strategies being evolved in this regard, SAIL in their written reply stated as follows:

"Since the current expansion plan of SAIL will be in position by 2010 there was no additional availability of steel beyond the current capacity of about 13 million tonnes of saleable steel. The market share hence has not increased during the last two years. The current availability is being catered to project customers like NTPC, BHEL and other infrastructural projects, which are important for the economic development of the country.

The future marketing strategy evolved in order to market the additional availability which is expected by 2010-11 are as under:

a) Value added steel in order to have better realization and cater to high-end customers who are currently depending either on imports or other producers.

b) Retail channels for large-scale distribution of steel in each and every corner of India so that consumers can procure SAIL steel at their nearest outlet at a competitive price.

c) E-sales where customers can procure materials directly from SAIL through online bookings from the comfort of their homes/offices, making payments and receiving the materials directly at their sites. The entire process is available online and the material shall reach without the customer taking pains to move from his site.

d) Modernization of plants in order to produce materials which have wide marketability and products which are needed by the country for development.

e) Immediate increase in capacity without gestation period through acquisitions / merger by which market share can be enhanced.

SAIL envisages a major improvement in its market share, once the expansion plan of its finished steel capacity to about 23 MT is implemented by 2010-11."

When asked as to what steps have been taken by SAIL for popularizing SAIL products in the rural market, SAIL in their written reply stated as under:

"SAIL has taken a massive plan of increasing the distribution network in every district of India by way of appointing district dealers. These dealers shall be marketing mainly TMT and GP/GC, which are used by rural customers for their requirement. In order to solve the logistic problems SAIL has also arranged to reach the material to the dealers' warehouses free of cost and MRRP (Maximum Recommended Retail Price) is fixed by SAIL on monthly basis so that uniform price is charged by the dealer to customers in a particular district. Currently SAIL has already covered 602 out of 603 districts with appointment of dealers and subsequently process is also on to reach the material to sub-block levels for easy availability to ultimate consumers in the rural market. Smaller packets / bundles are also being provided to meet the requirements of the small customers."

To a question as to whether marketing audit is properly conducted in SAIL, the Company in their written reply stated as follows:

"Marketing audit is a fundamental part of the marketing planning process. It considers both internal and external influences on marketing planning as well as review of the plan itself.

SAIL CMO is accredited under ISO 9001: 2000 under which plan reviews are done every quarter by the Local Management Review Committee and necessary alterations made to the plan after taking stock of the opportunities and threats , on a dynamic basis."

CHAPTER-VIII

RESEARCH AND DEVELOPMENT

When asked to furnish a note on research and development activities of the Company alongwith major achievements, annual expenditure in terms of percentage of total expenditure and also turnover for the last five years, and the impact of R&D activities in improving the working of the Company etc., SAIL in their written reply stated as follows:

> "Research and Development centre for Iron and Steel (RDCIS), the corporate Research unit, was set up at Ranchi in 1972. Besides the main centre at Ranchi, there are plant-centres located in each of the SAIL plants, which act as an interface between plant and main research centre.
>
> Over the years, it has grown to about 317 highly qualified research engineers (57 PhDs and 92 Post Graduates) and pursuing R & D programs covering major disciplines like Coal & Chemicals, Iron making, Steel making, Rolling, Product development, Energy, Environment and Automation. With the research experience of over 30 years, RDCIS has emerged as an Institute of repute in the field of ferrous metallurgy. The centre has been accredited with ISO certification in the year 1994.
>
> Major Research Facilities
>
> The research facilities comprise of 15 major laboratories encompassing 6 pilot facilities and 350 equipment and advanced diagnostic facilities. The pilot facilities and major laboratories are listed below;
>
> Pilot Plants & Simulation facilities
>
> - Pilot Coke Oven
> - Pot Sintering
> - Experimental Hot / Cold Rolling Mill
> - Combustion Research Unit for design & testing of burners
> - Thermo-mechanical simulator (Gleeble system)
> - Hot dip process simulator for coated products
>
> Major Laboratories
>
> - Coal, Coke and Chemical
> - Mineral Beneficiation
> - Sintering and Agglomeration
> - High temperature reduction
> - Melting and Solidification
> - PLC and Software development
> - Physical metallurgy
> - Mechanical Testing
> - Chemical analysis and corrosion engineering
> - Refractory
> - Tribology
> - Environment

Computational laboratory
Computer Centre with state-of-art development tools

Brief description of achievements of RDCIS during 2006-07:

Research & Development Centre for Iron and Steel (RDCIS) have provided innovative technological inputs to different units of SAIL, with special emphasis on cost reduction, quality improvement, product development, energy conservation and automation.

- Product development is one of the core activities, which entail development of market oriented value added products and their commercialization. Several new products were developed viz. :
- High strength corrosion resistant roof bolt for application in overhead roof support for underground coal mines
- Spring steel billets at DSP has been developed through the application of EMS (Electro-magnetic Stirring) during continuous casting. The billets were successfully converted to leaf spring assembly at customers' end.
- Medium carbon hot rolled strips for cold reducing segment;
- High Strength LPG for export quality cylinders.
- High strength cold rolled steel for automobiles;
- Earthquake resistant TMT rebars at DSP & BSP
- High strength Vanadium Microalloyed Rails were developed at BSP for the proposed freight corridor of railways. These rails are better than the conventional 90 UTS rails.

Major process related achievements

A glimpse of major achievements of the centre in different areas is outlined below:

Coal Carbonization:

- Enhancement of supply-base of imported coking coals through formulation of specification and evaluation of imported and indigenous coals. Evaluation is done through laboratory characterization, pilot oven tests and industrial scale trials.
- Coke oven performance evaluation and improvement.
- Introduction of in-house developed Integrated coking control system for reduction in specific heat consumption by 5 % at BSP and DSP.
- Improvement in granulometry of coal charge at RSP

Mineral Processing and Agglomeration (Sinter making):

- Modification in beneficiation schemes at iron ore mines of SAIL.
- Improvement in productivity, quality and reduction in specific energy consumption in sinter plants of SAIL.
- Stabilisation of productivity of sinter plants at DSP.

Iron making:

- Increase in Blast Furnace productivity (0.80 to 1.30 t/m^3/day at RSP, 1.35 to 1. 78 t/m^3/day at BSP), through optimization of burden distribution, control of blowing parameters, etc.
- Decrease in BF coke rate (600 to 563 kg/thm in BF#3 at BSL, 633 to 507 kg/thm at RSP) through improved gas utilization, heat flux control, etc.
- Campaign life of BF enhanced through hearth protection measures in the form of charging titani–ferrous ore and injection of ilmenite. Campaign life in BF 4, DSP was, increased by 6 months recently.
- Stabilization of pulverized coal and tar injection at BSP and BSL.

Steel making:

- Enhancement of BOF converter lining life through development of slag splashing technology and improvement in lining design and brick quality.
- Reduction of Aluminum consumption by approximately 1 kg / ton of liquid steel through improved deoxidation practice at BSP, RSP and BSL.
- Reduced residuals (P & Si) for low carbon extra deep drawing (BSL) and sulphur in rail (BSP) steel through refining technique.
- Improvement in desulphurization of steel at SMS II at BSP

Continuous Casting:

- Development of a system for aligning tundish and mould in billet caster at DSP.
- Quality improvement of cast slabs e.g. reduction of centre cracks from 7.2 to 1.6 % at BSL and reduced steel defects in high strength grade by 4% at BSP.
- Development of 880 MPA grades rails through BOF-CC route, which improved the yield of rails from 77 to 88 %.
- Internal quality of billets has been improved through automated secondary cooling in Caster II at DSP.
- Enhancement of cast billet quality of 125 mm square billets at DSP.
- Improvement in castability of Jackal Steel at ASP.

Refractory:

- Development of wide varieties of castables for application in steel ladles, caster tundish and mill reheating furnaces.
- Development of MgO-C bricks and in-house manufacturing for converters and steel ladles at RSP, BSP and BSL.
- Improvement of steel ladle life in SAIL plants (RSP: 49 to 80 heats, BSP: 38 to 62 heats and ASP: 30-150 heats).
- Introduction of low thermal mass (Ceramic fiber lining) in heat treatment and reheating furnaces for energy saving at BSP, RSP, ASP and DSP.
- Improvement in quality of CR coils at continuous annealing line of BSL.

Rolling Mills:

Flat rolling

- Productivity improved by 10% at Hot Strip Mill of RSP by introduction of longer slabs (7.7 m to 8.6 m). Yield improved from 96.2% to 97%
- Modification of process parameters of Cold Rolled Non-oriented (CRNO) coils at Silicon Mill, RSP, improved mill productivity from 5400 to 7000 tons per month.
- Next generation cold rolling oils developed for tandem mills of BSL and RSP facilitated in rate by 10 % and surface reflectance to 85 % .
- Accelerated cooling of plates at BSP eliminated normalizing treatment of plates of thickness 14-28 mm for all grades of steel.
- Automation of Looper and Entry guide control systems introduced in hot strip Mill, RSP, resulted in finishing mill yield improvement by reducing number of cobbles from 42 to 10 per annum.

Shape rolling

- Development of Micro alloyed (Nb/V) rails to withstand higher axle load.
- Development of corrosion resistant rail for coastal area.
- Indigenization of loco wheel production at DSP
- Introduction of hot charging and round ingot technology increased production of superior quality wheels, from 43000 to 65000 nos per year at DSP
- New loop sensor for wire rod mill, BSP, reduced rejection by 15%.
- Integrated monitoring and display system for fault indication and centralized electrical fault indication reduced mill delays.

Tribology:

- Condition Based Monitoring System (CBMS) introduced in all plants helped in preventing major break down of critical equipments.
- Developed plasma spray coating technology for reclamation of PBCC rolls at BSP.
- Superior wear resistance plates for sinter plants exhauster housing of BSL increased working life to 4 years.

Energy Conservation and Environment Management:

- Dual fuel burner for rotary kiln of BSP for replacing Pitch Creosote Mixture (PCM) by coke oven gas.
- Gaseous fuel burner for reheating furnaces of BSP and DSP for reduction in heat consumption by 5-10 %.
- Introduction of multislit burner for sintering at BSL and RSP.
- Regular monitoring of Polycyclic Aromatic Hydrocarbon (PAH) in Coke Oven emissions in all SAIL plants as a statutory requirement.
- Simulation study and process optimization of biological treatment plant at BSP.
- Improvement in performance of reheating furnaces no. I and II of Rail and Structural mill at BSP.
- Modification in design of ladle heating stands in SMS I at BSL.

Information Technology:

- Computerized Human Resource Information System (BSP, DSP and RDCIS)
- Computerized Refractory Management System (BSL, BSP)
- On line Financial Accounting System at BSP & RDCIS"

The papers published/presented by RDCIS during last three years are given in the following table.

Outputs	2004-05	2005-06	2006-07
Papers • Published • Presented	201 56 145	198 61 137	188 51 137
Nos. of Awards Received	9	10	6

Annual Expenditure in R&D as a percentage of turnover of SAIL for the past five years

(Rs. in crores)

Year	R&D Expenditure	SAIL's Turnover	R&D Expenditure as % of SAIL's Turnover
2002-03	54.82	19207	0.29
2003-04	71.90	24178	0.30
2004-05	60.55	31800	0.19
2005-06	62.38	32280	0.19
2006-07	76.85	39189	0.20

To a question whether R& D unit of SAIL could invent any technology for using low-grade coal for the manufacturing of steel, SAIL in their written reply stated as follows:

"RDCIS, a R&D unit of SAIL has carried out extensive research and development work to maximize use of low grade Indian and imported coals for coke making. Keeping in view high ash content of (more than 18%) in Indian coal, we are blending it with imported coal (of ash content of around 10%). To meet the growing demand of coal for SAIL units, the possibilities of using soft Coal to the extent of 5 – 10% in the blend have also been examined by RDCIS. Some of the pioneering work carried out by RDCIS, SAIL in this context are:

- Development suitable technology for blending and charge preparation. For example, "Group wise crushing of coal charge" technology (patented in India and abroad) has been developed through pilot and commercial scale investigations and introduced in its plants.

- Regular evaluation of new indigenous sources, through beneficiation, laboratory characterization and blending tests in pilot and commercial trials to increase supply base of raw coals to washeries. At present one of our major programme is to evaluate new coal sources, which have potential to produce metallurgical coals, but are being used as thermal coal, in collaboration with CIMFR, Dhanbad.
- Use of lower grade coals thorough partial briquetting of coal charge, selective crushing and complementing imported coals."

CHAPTER IX

EXPORT PERFORMANCE

When asked to furnish a note on the export performance of the Company, indicating inter-alia the names of the countries to which exports were made, the value of exports during each of the last three years and efforts made by the Company to augment the exports, SAIL in their reply stated as follows:

> "FOB value of exports of mild steel from SAIL during the last 3 years is as under:
>
> *(Value in Rs. Crores)*

	2004-05	2005-06	2006-07
Exports	897	977	941

> The countries to which exports have been made during the last 3 years are:
>
> Bangladesh, Myanmar, Nepal, Sri Lanka, China, Singapore, Taiwan, Phillipines, South Korea, Thailand, Indonesia, Vietnam, Japan, Italy, Belgium, Spain, U.K., Germany, France, Netherlands, Australia, Mexico, UAE, Bahrain, Oman and Sudan.
>
> SAIL is primarily a domestic player. However, as a part of its marketing strategy, SAIL continues to maintain its presence in the global markets. Special thrust has been given on catering to the requirements of the neighbouring markets like Bangladesh, Myanmar, Nepal and Sri Lanka which are also logistically advantageous markets."

On being asked as to what incentives are being provided by the Government towards export of steel by the Indian CPSUs like SAIL and steps taken by the Government for broadening the export base of steel PSUs in India, the Ministry of Steel in their written reply stated as under:

> "Government is providing incentive of Duty Entitlement Passbook Scheme (DEPB) for export of steel and this incentive is also available to PSUs.
>
> Traditionally, SAIL has been exporting a limited range of products covering mainly Semis and Plates. However, after the current capacity expansion of SAIL plants is completed in 2010, the export basket of products on offer is likely to widen considerably to include new products."

CHAPTER – X

ENERGY CONSERVATION

Energy conservation is one among the important techno-efficiency parameters of a steel plant.The Committee noted that the issue of alternate source of energy and reduction of coking coal consumption by increased usage of natural gas in place of coking coal will effect the replacement of 5 to 6 per cent of coking coal in blast furnace. When asked as to what are the prospects of gaining from increase use of natural gas in steel plants, SAIL in their written reply have stated as follows:

> "Natural Gas (NG) is injected as an auxiliary fuel in many of the blast furnaces abroad in the range of 60-100 kg/thm. The reported advantages of injecting natural gas are as follows:
>
> Easy to handle and inject
> NG is ash-free, so no solid residue after combustion
> Normally natural gas is used in combination with higher hot blast temperature & oxygen enrichment.
> Coke saving of 0.8 – 0.9 kg/kg of natural gas has been obtained
>
> SAIL is exploring the possibility of getting Natural gas. Arrangements for injection of natural gas in SAIL blast furnaces will be made whenever it is made available to SAIL plants."

On being further asked as to whether SAIL approached major natural gas producing PSUs such as GAIL, ONGC, etc., management of SAIL in their written reply have stated as follows:

> "Continual efforts are being made by SAIL to harness alternative sources of energy like Natural Gas, CBM etc.
>
> In this regard, SAIL had signed a MoU with GAIL for supply of natural gas to the steel plants. No progress has been made till now due to constraints faced by GAIL for sourcing of natural gas.
>
> Besides, discussions are in place with ONGC for considering supply of CBM to SAIL plants. As per the latest indications, commercial production of CBM by ONGC is likely to commence by 2009-10 at the earliest.
>
> SAIL is exploring possibility for a tie-up with companies like ONGC subject to an agreement on terms and conditions."

To a question as to whether the Company has taken any steps to reduce consumption of coking coal by resorting to use of alternate fuels and steps taken by Research and Development Centre for Iron and Steel (RDCIS) in this regard, SAIL in their written reply stated as under:

“SAIL has installed pulverized coal injection and coal tar injection as a step to reduce the consumption of coking coal. The details of the installation of the above facility are as follows:

- 6 out of 7 Blast furnaces at Bhilai Steel Plant
- 3 out of 5 Blast furnaces at Bokaro Steel Plant
- 1Blast furnace at Durgapur

Moreover, SAIL has planned to introduce pulverized coal injection facility in all its remaining blast furnaces during the forthcoming modernization and upgradation programme. RDCIS has been closely associated along with the concerned plant for utilization of this technology to its maximum possible extent under our operating conditions. Some of the steps initiated by RDCIS for maximizing the utilization of alternat fuels are:

- Optimization of burden and gas distribution in the blast furnace
- Adjustment in blowing parameters
- Improvement in cooling efficiency of coolers in the furnace walls

SAIL has achieved a pulverized coal injection rate of 45-75 kg/thm in many of the blast furnaces in the recent past with replacement ratio of about 1 kg of metallurgical coke for each kg of coal injected. Also injection of CBM (coal base methane found in coal mines near Dhanbad) in Blast furnaces is in active consideration. After exhaustive lab scale studies at RDCIS, low VM coal i.e. Jhama coal from Ram Nagar colliery was utilized in iron ore sintering. This partially substituted the conventional fuel i.e. coke breeze.”

CHAPTER XI

ENVIRONMENTAL PROTECTION

On being asked as to what type of pollution is caused by the activities undertaken by the company and what specific measures have been taken by the Company to check/ abate environmental pollution, SAIL in their written reply stated as under:

"Steel being major contributor for development, saves resources and reduces wastes by its capacity to be recycled time and again. Though steel is environment friendly, the process of steel making has significant environmental ramifications like Air pollution, Water Pollution & Noise pollution & Solid Waste generation .

Air Pollution Control:

SAIL being an environmentally conscious steel producer believes in economic growth of the company in tune with the sustainable development. Comprehensive and structured initiatives in SAIL has significantly brought down the pollution load (stack emission) to 2.5 kg/tcs from 10.0 kg/tcs in a decade. Extending new air pollution control facilities in shops and augmenting the capacity of the existing ones are helping the stack emission to comply with the statutory norms. The stacks of the special steel plants are 100% complying with norms.

The Coke Ovens at SAIL are of recovery types and By- products are being recovered from Gas Collecting mains. The emissions from all the Coke Oven Batteries are mostly within norms. This is being done through regular maintenance and cleaning of Coke Oven doors. Regular lid luting are being done to control the leakages from lids. For dust control at different points various pollution control equipment like Multi Cyclones, Bag Filters have been installed.

To clean the off gas from Blast Furnace, all the plants are provided with efficient Gas Cleaning Plant. Various pollution control equipment have been provided for the dust extraction from cast house, material handling plants, Sinter Storage areas, Cold and hot sinter screens etc of Blast Furnace and Sinter Plants.

Most of the Steel Making operations are after Gas Cleaning Plant, the by- product gas is recovered and being utilised as a fuel source. There are various pollution control equipment like Bag Filter/ ESP & Multicyclones which are installed to capture the emissions at Mixer house, ladle skulling and de skulling area, Material Handling areas etc.

Water Pollution Control:

Steel Industry is one of the most water intensive industry. Because of the recent statutes, water – though not scarce but has became a costly resource.

Our concern about water is both for quality and quantity. The main areas of concern are:

- Qualitative : Surface and ground water for plants and mines.
- Quantitative : Reduction of consumption by bringing in less water intensive technologies and recycling the effluent wherever possible after proper treatment.

SAIL plants are meticulously maintaining the effluent treatment plants, improving water re-circulation efficiency and quality of effluent discharged. BSP and BSL are provided with centralized water re-circulation system while DSP and RSP are provided with localized water re-circulation systems. In the last five years SAIL has significantly reduced the specific effluent discharge to the tune of 52%. Some of the units of SAIL are planning for zero discharge in the coming years.

Noise Pollution Control:

In Steel Industry the major contributor of Noise pollution is Blast Furnace, Steel Melting Shop (during lancing) & Power Plants. Snort Valve silencers have been provided to control the emissions at Blast Furnaces. Employee are provided with ear pugs / ear muffs at the shop floors. Employees are also undergoing regular health check ups at health centre.

Solid Waste Management:

In SAIL approximately 560 kg of process wastes are being generated per tonne of Steel production. Utilisation of steel plant wastes, which are non toxic, are being made through internal recycling and selling to outside agencies. Blast Furnace & Steel Melting Slag generated from a steel plants contribute approximately 88 % of the total wastes generation. The present utilization of BF & SMS slag is more than 70%.

To increase the utilization of Blast Furnace slag, long term contracts have been signed and attractive incentives are being offered to distant buyers. New Cast House Slag Granulation plants have been set up and few more are coming up. LD (SMS) slag after crushing and screening, is mostly being recycled back into the Sinter Plants.

Hazardous wastes generated in steel plants are either being recycled or sold to authorized recyclers. The wastes which are neither being sold or recycled are being dumped in secured land filled site. BSL & RSP have secured land filled pits. At BSP pit construction process is going on. DSP & IISCO have signed long term contracts with Waste Management Limited (under the initiative of West Bengal Pollution Control Board) for centralized Hazardous Waste Management & disposal."

When further asked as to whether SAIL has made any significant progress in reducing Green House Gas emissions, the reply of the Company was as under:

"The production of iron and steel is highly energy intensive process and usage of energy is one of the major contributing factors for generation of $CO_{2,}$ the major Green House Gas (GHG) emitted through burning of fossil fuels. SAIL

recognizes, it has a major role to play in conservation of energy and thereby reducing net greenhouse gas emissions.

SAIL has been taking multi pronged strategy for its existing facilities and processes for reduction in specific energy consumption and GHG emissions. To name a few where significant progress have been made are as under:

- Phasing out of the old energy intensive process with cleaner technologies like

  Replacing Open Hearth Furnaces (OHF) by LD converters at Steel Melting Shop

  Replacement of Single Conversion Single Absoprtion (SCSA) with Double Conversion Double Absorption (DCDA) method at Sulphuric Acid plant

  Replacement of conventional rolling through ingot mould route by Casters.

  Replacement of conventional burners by multi slit burners in Rolling Mills

  Conversion of Coal fired to Gas fired boilers at power Plants

- Inspection and monitoring of energy intensive processes and their emissions

- Strict adherence to Standard Operation Practices (SOPs) and Standard Maintenance Procedures (SMPs)

- Implementation of management systems linked with ISO 9000, 14001, OHSAS 18000

Some of the recent initiatives taken towards improvement of energy efficiency and thereby reduction in GHG emissions in SAIL plants at different technological area are as under:

Coke Ovens:

- Dry gunniting in ovens to plug cross leakages in at BSL
- Replacement of conventional motors with energy efficient motors at BSL

Blast Furnace:

- Commissioning and operation of Coal Dust Injection (CDI) in BF # 1 & 5,6 & 7 at BSP and BF# 4,5 at BSL
- Installation of new energy efficient dry fog dust suppression system at BF 4 stock house at BSP
- Partial relining of Stoves at BF 4 to improve hot blast temperature thereby reduction in coke rate at ISP.

Steel Melting Shop:

- Augmentation of LD gas recovery scheme at SMS II resulting in energy reduction of about 15.0 Gcal/year at BSP

- Commissioning of independent exhaust system for slab caster # 2,3 & 4 at BSP

Rolling Mills:

- Erection and commissioning of thyristor control system for 800 T shear at Blooming and Billet Mill of BSP
- Installation of 18 KW motors in place of 24 KW motors in 92 nos. of bases in Annealing of CRM at BSL
- Installation of VVVF drives in furnace delivery roll tables, at Rail and Structural Mill resulting in reduction of mechanical failures and power consumption at BSP
- Up-gradation of instrumentation combustion control of Section Mill to improve furnace productivity, specific heat consumption and scale loss at ISP.

Power Plant:

- Switch over of fuel from coal to BF gas in:
  -- Boiler #6 of Power and Blowing Station at BSP
  -- Unit-B boiler at Power Plant of ISP

Use of Renewable Energy:

Various units of SAIL have been making efforts since long for the use of solar energy in their premises. To name a few efforts are :

- Installation and use of Solar lights in
- Lighting one of the major cross roads of Bhilai Steel Plant.
- Remote area of sludge dumping at Salem Steel Plant.
- Peripheral villages of IISCO Steel Plant viz. Dhira Village, Leprosy Colony, Purosattampur and Ghutghutia.
- Peripheral villages of Chiria Iron ore Mines, Manoharpur.
- Solar panels are in place in the Guest House of Bokaro Steel Plant and Salem Steel Plant.
- Solar metereological station has been put up at Purnapani Mines.

In addition to the above, SAIL has also identified 71 projects having potential for reduction in GHG emissions and also attracting CDM benefits (Clean Development Mechanism under Kyoto Protocol), at its integrated steel plants.

SAIL, under modernization of its units, has planned new installations with high energy and material efficient technology. These systems will help in pollution abatement and reduction in GHG emissions.

Some of the major technological up-gradation that have been emphasized to take care of energy and reduction of GHG emissions are:

Coke Oven
-- Coke dry quenching
-- Screw type feeding charging cars with telescopic chute

-- Computerized combustion control process
-- Taller coke ovens

Blast Furnace
-- Larger volume Blast Furnace with top gas recovery turbines (TRT)
-- Cast House slag granulation

Sinter Plants
-- Energy recovery from Sinter Cooler
-- Adoption of Multi slit / Low Nox burners

Steel Melting Shop
-- 100% production of steel through BOF and continuous casting route

Rolling Mills
-- Compact Strip Mill
-- Thin Slab Casting
-- Bloom Casters
-- Slab Casters"

The Committee noted that all the parameters of air and water quality are monitored and reports are being sent to State Pollution Control Boards (SPCBs) on monthly basis. When asked as to whether SAIL has received any adverse remarks from SPCBs, SAIL in their written reply stated as under:

"As per relevant standards and methodologies, SAIL is monitoring all the air and water quality parameters at its different plants/units. The reports are being sent to State Pollution Control Boards (SPCBs) regularly on monthly basis.

SAIL in the recent past, had received three non compliance reports for three of our plants – Durgapur Steel Plant with respect to water quality and IISCO Steel Plant & Alloy Steels Plant with respect to air quality. Corrective actions have been taken by the respective plants as per the advice of West Bengal pollution Control Board (WBPCB)."

CHAPTER XII

MANPOWER

When asked to furnish a note on the total manpower requirements as originally assessed for the last three years and the number of persons actually employed, the reply of the Company was as under:

> "In SAIL, the manpower requirement is ascertained through Annual Human Resource Plan wherein detailed manpower planning for all plants/units of SAIL is carried out. The projected closing manpower for last three years vis-à-vis actual numbers employed is presented below:

Year	Projected closing Manpower as per HRP of SAIL	No. of employees employed
2004-05	123458	126857
2005-06	122867	123392
2006-07	119451	119009

Manpower position in ISP:

Year	No. of employees
2004-05	16218
2005-06	14819
2006-07	13964

* IISCO Steel Plant (ISP) was merged with SAIL during 2005-06."

On further being asked as to whether the justification for the level of manpower and expenditure incurred thereon has been examined vis-à-vis volume of work, the Company in their written reply stated as follows:

> "The focus has been on manpower rationalisation since last few years and optimal utilisation of manpower. In last three years while the manpower of SAIL including ISP has shown reduction, the production has shown an increase as evident from table below :

Year	Crude Steel Production (MT)	Manpower of SAIL (incl. ISP)
2004-05	11.82	143075
2005-06	13.17	138211
2006-07	13.51	132973

Now, SAIL is planning to enhance its capacity to 25 MT. While Corporate Plan envisages enhanced production levels, it simultaneously lays emphasis upon achieving higher labour productivity, manpower rightsizing through natural separations and VR and selective recruitments. As such the manpower strength of SAIL after capacity expansion is likely to be less than the manpower strength of 1,32,973 (as on 31.3.07).

Notwithstanding the facts that rationalisation shall continue further to increase competitiveness, simultaneously selective recruitments shall also be undertaken to meet skilled manpower requirement for new projects.

Recruitment of technical personnel, Diploma holders and ITI certificates holders shall continue to be carried out for meeting skilled manpower requirement in view of the modernisation/expansion plans of SAIL."

When asked to indicate the value addition per man/month and the average monthly emoluments per employee during each of the last three years, SAIL in their written reply stated as follows:

"Detailed information is as under:

	Value added*	Avg. Manpower	Value added / man /month	Avg. Monthly emoluments
Unit	Rs./Crs.	Nos.	Rs./ month	Rs./ month
2006-07	8467	135592	52037	32747#
2005-06	5237	140643	31030	27281
2004-05	9091	129384	58553	26993

* Value added = Gross Margin – 10% of Capital employed as per MOU guidelines 2005-06.
\# Provision for wage revision Rs.170 crs has been excluded

The Committee noted that the number of employees has decreased from 1,23,392 in 2005-06 to 1,19,009 in 2006-07. When asked to comment on this, the CMD of SAIL during the oral evidence stated as under:

"SAIL, at one time, in the middle Eighties, we were 2,50,000 employees and at that time, we were producing 6 million tonnes, and now with 1,30,000 employees, we are producing 14 million tonnes. So, our labour productivity has almost gone up six time. It is a tribute to our workforce and our employees.

Sir, a point was made that how they are able to do it, we have retrained them in multi-skilling. The reduction of employees has come only through natural process, that is, natural retirement and VRS. We have not recruited as many people as have retired. But we have been taking the new recruits every year. In fact, we are recruiting around 700 engineers every year. Many of these engineers are not from IIT but from engineering colleges across the country, who are getting opportunities to come in our mainstream including the girl engineers, who are working on shop floors. Similarly, we are also recruiting in other categories, that is, Class IV, Class III, Class II now. Since, we will be going now for extension, there is a skill dilution. So, we need to upgrade skill as well improve our age mix. We are regularly going for fresh employment also in all our plants.

But still our labour productivity as compared to other steel plants in the country as well as by international standard, is much lower. For example, in one of our plant providing four million tonne, we might be having 25,000 to 30,000 employees while a private sector steel plant producing four million tonne, would be having only about 3,000 employees. We have to compete with them also. So, we are going in a very judicious manner. We also take care of the employment aspirations of the people. At the same time, we do not like to recruit people who cannot be employed gainfully. That is our policy."

CHAPTER XIII

INDUSTRIAL RELATIONS

When asked to furnish a note on industrial relations in SAIL *inter-alia* including the number of man-days lost on account of strikes, absenteeism and lockouts during each of the last three years, etc., and steps taken/proposed to be taken to reduce loss of working days due to above reasons, SAIL in their written reply stated as under:

> "Industrial Relations in SAIL is guided by the overall HRD mission of the Company. SAIL has dedicated team both at Plants/Units level and at Corporate level and to maintain smooth and peaceful industrial relations climate. At Plants the personnel officers who operate at the different shop floors remain in constant touch with the employees to clarify their doubts and confusion, to resolve their grievances and to educate them about the Company's policies and decisions. They also keep the management informed about the shop floor developments so that proactive action can be taken to prevent any break-down in industrial relations. A 3-tier grievance handling system is in operation in the plants and units which is extremely effective in resolving all contentious individual as well as group issues at the plant/unit level itself. This has immensely added to the effectiveness of the spirit of working together.
>
> In SAIL, there are more than 250 registered unions functioning at its Plants/Units. Though, there is a multiplicity of unions, however, over a period of time, the pattern of bargaining has been evolved. Accordingly, negotiations, discussions and collective bargaining on employee-related matters take place with the recognized unions or with the forum unions as well as with other important unions who have following among the workers.
>
> In SAIL, the experience with different forums of workers' participation in decision-making has been very rich, fruitful and rewarding. Workers and employers have shown high level of maturity, mutual understanding and active co-operation on all organizational issues, and a tradition of resolving conflicts, if any, through discussions across the table, has been established. Over the years, care has been taken to foster a bipartite culture. The system in practice in steel plants operates at both formal and informal levels. Over a period of time, the system has stabilized itself in the form of formal committees, which operate at five levels, i.e. national, corporate, plant, zonal and shop-floor, a glimpse of which is given below:
>
> National Level: National Joint Committee for Steel Industry [NJCS], Joint Committee Safety Health & Environment in the Steel Industry [JCSSI]
>
> Corporate Level : Joint Committee of SAIL on Production & Productivity
>
> Plant Level: Separate Committees on Production, Safety, Grievance and Welfare

Zonal Level: Separate Committees on Production, Safety, Grievance, Welfare, besides Sports, Education, Medical, Canteen, Township, etc.

Shop Level: Separate Committee on Production, Safety and Welfare.

The informal system of workers' participation in decision-making operates through Quality Circles, Suggestions Scheme, Shop Improvement Groups and by direct contribution of employees to production and productivity at the shop floor.

A lot of emphasis has been given on regular communication with the employees at all levels, right from Managing Director to Shift Incharge/ Personnel Executives. At main plants Managing Directors hold regular mass contact exercises with cross section of employees, where employees can raise various issues including suggestions for improvement in production/ productivity and safety of the employees. Since prompt decisions are taken in such interactions, this leads to creation of an atmosphere of transparency and trust among employees.

At Bhilai Steel Plant, Social Accountability Standards (SA-8000) has been adopted. These standards basically aim at promoting a socially accountable, safe and healthy work culture so as to enable the employees to contribute their best towards attainment of the organizational goals and objectives. For this purpose Non Management Representative (NMRs) have been identified to act as communication link between management and the employees.

The results and benefits of the above steps are clearly visible from the increasing production & productivity, labour productivity, sales turnover, adoption of productive practices and in reduction in energy consumption, etc. With these steps SAIL has been able to maintain a record of negligible incidents of work stoppages on plant related issues over the years, despite its spread over various states and massive volume of production and other activities it performs. As a matter of fact, SAIL has been able to sustain itself because of active co-operation of its employees for the steps taken to come out of the very difficult business phase.

Man-days loss due to strike:

The incidents of production loss due to workers' agitation are very rare in SAIL. However, due to national level strike calls and some stray incident of work stoppages at plants sometimes loss of man-days do take place, data in that regard is as follows :

Year	2004-05	2005-06	2006-07
Man-days lost due to strike call at national level in protest of govt. policies	-	14613	12428
Man-days lost due to work stoppage etc.	172	-	634
Total	172	14613	13062

Steps taken to prevent man-days loss due to strike/work stoppages etc.

As apparent from the above that the proactive steps taken by SAIL like workers' participative in decision making at difficult level and regular interaction with the employees and their representatives both at formal and informal levels have resulted in maintaining nil or almost insignificant mandays loss due to work stoppages on plant related issues. In case a strike notice is received on plant related issues or any such issue is brought to the notice of the management, the workers' representatives are immediately engaged into dialogue and every possible step is taken to redress the issues.

In SAIL man-days losses have taken place mainly due to nation wide strike calls given by Central Trade Unions on the issues related to government policies over which the Company has little or no control. Even a strike called at National level or bandh, we may appeal to unions and workers to refrain from strike and also seek help of labour machinery and Civil Courts. However, the management remains in close coordination with the Central Trade Unions during such strike calls to minimize their impact on plant operation. Appeals are issued to the employees as well as to the striking Unions to reconsider their stand and to isolate SAIL from such calls in the interest of the Company and the workmen. The principal on "no work no pay" is strictly maintained during such calls and disciplinary action is also initiated for instigating workers to go on illegal strike or work stoppages etc.

Man-days loss due to absenteeism:

Man-days losses due to absenteeism have not affected the plant operations at SAIL. The manpower provided has inbuilt provision for leave balance and working system at plants, which has evolved over the years, takes care of the unauthorized absenteeism, which are in low proportion. Steps taken by management like counseling of erring employees and disciplinary actions against them, rewarding the employees/departments for good attendance etc. has kept the unauthorized absenteeism into check.

Man-days loss due to lockouts:

There has been no lockout in SAIL."

The Committee have noted that during 2006-07, the man-days lost due to strike were 12,428. When desired to know what action has been taken by the Company in this regard, the CMD of SAIL during the oral evidence stated as under:

"There was one point with regard to man-days lost. We have a system of no work no pay. So, if the workers are absent without authorised leave granted, then they lose the pay for that part. We do not have any industrial relation problem but it is due to overall *bandhs* and other things. But to that extent, we apply no work no pay."

CHAPTER-XIV

SAFETY MEASURES

When asked to furnish a note on the safety measures, the management of SAIL in their written reply have stated as follows:

"Steel Authority of India Limited (SAIL) lays the emphasis on safety of human resources at par with production and productivity, cost reduction and quality. Safety is monitored by Chief Executives to demonstrate the concern of the management. Safety is designed and built into the every job before any job is executed in all SAIL Plants/ units. Safety violations are viewed seriously to the extent of penal action on defaulters.

SAIL has full-fledged Safety Departments in all the Plants, Subsidiary Units and mines to look after safety management of the respective plants and units. In addition, a Corporate Safety Unit named SAIL Safety Organisation (SSO) also exists to coordinate and monitor the safety activities and to provide appropriate corporate thrust on safety management in Company.

SAIL has a Safety Policy. In consonance with the safety policy of the Company, safety programmes and safety activities are organised in SAIL plants/ units.

Annual Performance Plans (APP) in the areas of safety and fire services are formulated and review of implementation of APP is done at plant as well as corporate level.

The Standardization committee IPSS 1:11 on Standardization of Safety Appliances & Procedures is functioning under the Chairmanship of ED(Safety), SSO and Heads of Safety of SAIL Plants/units. TISCO & RINL are also the members of the committee. Standards on safety procedures have been developed by the committee on the various safety related subjects.

Internal and external safety audits of major departments particularly hazardous areas are conducted every year and points arising from these audits are liquidated.

All the necessary Personal Protective Equipment like safety shoes, safety helmets, breathing apparatus etc. are provided free of cost to all regular employees. PPEs are supplies by the contractor to their workers as per terms of contract. In case of failure to do so, these are issued by SAIL on cost recovery basis.

Safety aspects have been incorporated in standard operating practices (SOP) and standard maintenance practices (SMP).

All major capital repairs/ shut downs are closely monitored round the clock to prevent accidents.

Periodic drives are conducted to inculcate safety awareness up to grass-root level.

Regular preventive inspection of unsafe acts & condition, safety interlocks limit switches, pull cords, emergency stop switches etc. is being done on the basis of check list and corrective actions are taken.

Bamboo scaffolding has been totally replaced by pipe scaffolding and safety belt by full-body harness.

Use of manual winches for lowering loads has been abolished and work-permit system introduced for hazardous jobs.

Job/area specific safety communications are displayed at vulnerable locations to caution employees about hazards and take precautionary measures.

On-site disaster management plans have been prepared and mock drills are conducted regularly.

The movement of heavy vehicles is segregated during shift change time to avoid any road accident.

All accidents and near miss cases are investigated and remedial actions are taken to prevent their recurrence. For each fatal accident, enquiry committee is constituted to look into the reasons, which led to the accident and recommend measures to prevent recurrence of accidents. These are monitored by Plant/Corporate Safety Department.

Safety training is imparted to target group employees at various levels. HRD intervention in the area of safety covers Heads of Departments, Line Managers & Departmental Safety Officers. Besides area specific workshops are conducted at different location on important topics like gas safety, rail/road safety, safety in iron, steel & coke making etc.

Skill oriented job specific safety training is being imparted to various groups like crane operators, loco operators, porters, riggers, welders, gas cutters, electricians, heavy earth moving equipment operators etc.

Safety training has been made mandatory to contractor workers before issue of gate pass to them. Job specific safety training is imparted at site by the executing agency before starting the job.

Various awareness programmes are being organized for employees like undertaking " Roko-Toko" drive to identify violators of safety practices, videography of unsafe acts/conditions and subsequent telecasting through local TV networks. Safety awareness among house-wives and children is also being generated through various campaigns.

Use of crash helmet by two wheelers has been made mandatory. In addition surprise checks is being carried out for vehicles plying inside plants and mines.

Provisions of Factories Act 1948 like testing of pressure vessels, tools/tackles & lifting equipment etc. are fully complied with.

Electrical jobs are being carried out after taking proper shutdown as per Indian Electricity rules. In addition regular checking of earthing of electrical equipments is done.

A bipartite forum named Joint Committee on Safety, Health and Environment in Steel Industry (JCSSI) having representatives from steel plants in SAIL,

RINL, TISCO, Ispat Group, NINL and Central & Plant level Trade Unions is functioning at National level. With a view to inculcate safety consciousness, JCSSI organizes seminars, workshops, training program, 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."

When asked to indicate the number of accidents/casualties occurred during the each of the last three years, the management of SAIL in their written reply have stated as follows:

Statistics of fatal accidents in SAIL Plants/ units

Plant	2004	2005	2006
BSP	1	3	4
BSL	3	9	5
DSP	3	3	3
RSP	3	3	3
ISP	1	2	2
ASP	-	-	2
RMD	2	3	1
BSP Mines	3	-	1
ISP Mines	4	1	2
CMO Stockyard	-	1	-
Total	20	25	23

(The above figures includes regular as well as contractor employees)

From the above, it is noted that a number of fatal accidents that occur in SAIL's plants average around 23 in the last three years. When asked as to why SAIL could not achieve zero accidental rate, the management of SAIL in their written reply have stated as follows:

"Although, number of fatal accidents occurred in SAIL Plants/ units average around 23 during the last three years, consistent efforts have been made by different plants/ units as well as at SAIL Safety organization (SSO) level to reduce it further as evident from the table given below-

Year	03	04	05	06
BSP	5	1	3	4
BSL	2	3	9	5
DSP	1	3	3	3
ISP	5	1	2	2
RSP	4	3	3	3
ASP	0	0	0	2
MEL	0	0	0	0
SSP	0	0	0	0
VISL	9	0	0	0
CMO	0	0	1	0
RMD	2	2	3	1

BSP(M)	2	3	0	1
ISP(M)	0	4	1	2
TOTAL	30	20	25	23

Following steps have been taken by different plants/units as well as at SSO level for reducing accidents:

- Safety is monitored by Chief Executives of respective plants/units. This demonstrate the concern of the management towards this vital issue. Safety is designed and built into every job before any job is executed in all SAIL Plants/ units. Safety violations are viewed seriously & actions are being taken against violators.
- Each Plants/units of SAIL have full-fledged Safety Engineering Departments to look after safety management of the respective plants and units under Head of Works. In addition, a Corporate Safety Unit named SAIL Safety Organisation (SSO) also exists to coordinate and monitor the operational /fire safety activities undertaken at the different plants/units and to provide appropriate corporate thrust on safety management in Company.
- Internal and external safety audits of major departments particularly hazardous areas are conducted as per schedule and points arising from these audits are liquidated.
- Bamboo scaffolding which is not safe to use has been totally replaced by pipe scaffolding and safety belt is also being replaced by full-body harness.
- All the necessary Personal Protective Equipment like safety shoes, safety helmets, breathing apparatus etc. are provided free of cost to all regular employees. PPEs are supplied by the contractor to their workers as per terms of contract. In case of failure to do so, these are issued by SAIL on cost recovery basis.
- Safety aspects have been incorporated in Standard Operating Practices (SOP) and Standard Maintenance Practices (SMP).
- All major capital repairs/ shut downs are closely monitored round the clock to prevent accidents.
- Periodic campaigns are conducted to inculcate safety awareness up to grass-root level .
- Regular preventive inspections of unsafe acts & condition, safety interlocks limit switches, pull cords, emergency stop switches etc. are being done on the basis of check list and corrective actions are taken.
- Use of manual winches for lowering loads which was a safety hazard has been abolished .
- Protocol system have been introduced for hazardous maintenance jobs like Gas line jobs, Maintenance jobs in electrical installations, Electrically Powered Machines, Hydraulic line jobs , for working in confined space etc.
- Job/area specific safety communications are displayed at vulnerable locations to caution employees about hazards and take precautionary measures.

- On-site disaster management plans have been prepared and mock drills as an emergency preparedness are conducted as per the plan.
- The movement of heavy vehicles is restricted during shift change hours to avoid any road accident.
- All accidents are investigated and remedial actions are taken to prevent their recurrence. For each fatal accident, enquiry committee is constituted to look into the reasons, which led to the accident and recommend measures to prevent recurrence of accidents. These are monitored by Plants Safety Engineering Departments & SSO.
- 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 & Departmental Safety Officers. Besides area specific workshops are conducted at different location on important topics like gas safety, rail/road safety, safety in iron, steel & coke making etc.
- Skill oriented job specific safety training is being imparted to various target groups like Crane Operators, Loco Operators, Porters, Riggers, Welders, Gas Cutters, Electricians, Heavy Earth Moving Equipment Operators etc.
- Various awareness programmes are being organized for employees like undertaking " Roko-Toko" drive to identify violators of safety practices and videography of unsafe acts/conditions & subsequent telecasting through local TV networks. Safety awareness among house-wives and children is also being generated through various campaigns.
- No person riding two wheelers are allowed entry inside plant premises without crash helmet. Surprise checks are being carried out for ensuring the same.
- A bipartite forum named Joint Committee on Safety, Health and Environment for Steel Industry (JCSSI) headed by Director (Technical), SAIL as its Chairman & Executive Director (Safety), SAIL as Vice Chairman and having representatives from steel plants & units of SAIL, RINL, TISCO ,Ispat Group , NINL and Central & Plant level Trade Unions is functioning at National level. With a view to inculcate safety consciousness, JCSSI organizes seminars, workshops, training program, 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.

However, in spite of above-mentioned efforts/actions, accidents are still taking place in the plants/units. With continuing efforts to ensure proper upkeep of the plant & equipment particularly from safety point of view and adherence to the standard operating & maintenance practices and eliminating human errors, accident rate is expected to be reduced towards 'Zero accident' rate. "

CHAPTER-XV

THE ROLE OF MINISTRY – NATIONAL STEEL POLICY

The role of the Ministry of Steel is as follows :

- Policy formulation regarding production, distribution, pricing of iron & steel and ferro alloys
- Development and promotion of iron and steel production of iron and steel production facilities
- Development of essential inputs like iron ore mines and other relatede minerals in respect of PSUs
- Overseeing the performance of public sector undertakings and Government managed Bird Group Companies

Regarding the salient features of National Steel Policy and the likely impact of that policy on SAIL, the management of SAIL have in their preliminary written reply stated as follows:

> "SAIL is one of the largest and most profitable public sector companies with a turnover of more than Rs.39,000 crores and a net profit of around Rs. 6,200 crores in FY 2006-07. SAIL supplies inputs to critical sectors of the economy which are the backbone to the industrial development of the country.
>
> SAIL's future plan is envisaged in line with the National Steel Policy. The future plan i.e. the Corporate Plan of SAIL, envisages growth to maintain market leadership in Indian Steel Sector. To ensure this, the thrust has been planned on cost and quality competitiveness. The competitiveness will be ensured by efficiency improvement planned both in backward and forward linkages through technological interventions. The backward linkages by sourcing the raw material will bring down the cost of input raw material and forward linkages will ensure the customized and competitive products in the market.
>
> The National Steel Policy is targeting upto 2019-20 whereas SAIL's Corporate Plan is upto 2010-11. Beyond the Corporate Plan, SAIL has prepared a broad directional plan upto 2019-20. However, based on the achievements of the Corporate Plan implementation & the market dynamics, the future plan would be crystallized.
>
> Accordingly, main features of the National Steel Policy have been outlined and also actions taken/ initiated by SAIL in line with the National Steel Policy. It is understood that the National Steel Policy is under revision and accordingly, SAIL's Plan would be tuned to meet the revised targets of National Steel Policy in 2019-20."

S.No.	Key features of National Steel Policy	Actions initiated/ taken by SAIL
1	**Strategic Goal:** • Indigenous production of around 110 MT per annum by 2019-20. This implies a compounded annual growth of 7.3 percent per annum. • **Steel consumption in the world** around 1000 MT in 2004 expected to grow by 3% (compared to 2% per annum in the last 15 years) to around 1395 MT in 2015. • China to continue to have a dominant share in the world steel demand. • **India's growth rate of steel** production was 7% (last 15 years), projected 7.3% per annum. • **Consumption** in 2004-05 of 36 MT (production 38 MT + imports 2 MT – exports 4 MT) to grow to 90 MT by 2019 – 20 (production 110 MT + imports 6 MT – exports 26 MT) • **Imports** to grow at 7.1% and **exports** at 13.3% and consumption at 6.9%.	The Corporate Plan of SAIL envisages an annual growth at about 7.1%. SAIL plans to produce 25 MTPA of hot metal and 23 MTPA of saleable steel by 2010-11. SAIL has merged IISCO with itself in Feb.'06 to bring synergy and enhance its capacity. SAIL has also envisaged growth through acquisitions. Currently, there is a plan to acquire NINL, with current capacity of 1 MT capacity, by which, the capacity will increase further. NINL has further potential to enhance its capacity, which would lead to further increase in growth rate. Beyond 2011, SAIL is firming up plans to grow in line with National Steel Policy. The production capacity is likely to increase to around 60MT by 2019-20. If market becomes further buoyant, SAIL will also enhance its growth rate to maintain market dominance by further expansion on existing sites or green-field expansions or by M& A activities
2	**Raising rural consumption**: The rural consumption of steel in India remains at around 2 kg per capita per annum, primarily because steel is perceived to be expensive among the village folks. Based on the promotional efforts mentioned above, and an active focus on opening new block level rural stock points, a target is set for raising the per capita rural consumption of steel to 4 kg per annum by 2019-20, implying a CAGR of 4.4 percent.	To increase rural consumption, SAIL has taken the following steps : • Decision taken to appoint dealers in all the 603 districts of India. • 653 dealers(including LOIs issued) appointed by SAIL in 527 locations • For the balance districts, continuous efforts are on. • SAIL is also making efforts through Institute For Steel Development and Growth (INSDAG) for improving usage of steel. • SAIL has adopted Model villages and is making efforts to improve usage of steel in these villages.

3	**Exports***:* While the business decision to export will depend on the prevailing relative prices, the Government would encourage strategic alliances with buyback arrangements and dedicated export production through 100% export-oriented units. A growth rate of around 13 % per annum is envisaged up to 2019-20. *Imports:* The Government would institute mechanisms for import surveillance and monitor export subsidies in other countries.	SAIL plans to keep an optimum balance between supplies to the domestic and export markets to maintain SAIL's continued presence in the international market
4	***Critical Inputs:*** **<u>Iron Ore</u>** In order to ensure availability of 190 mT of iron ore for domestic production of steel by 2019-20, Government would encourage investments in creation of an additional modern mining and beneficiation capacity of 200 mT. The size of these investments will be around Rs. 20,000 crore. The current policy of captive mining leases for the private sector would continue, but it is necessary that investment plans be put in place for idle mining leases. State governments would recommend renewal of existing leases only against credible mining investment plans in a specified period. Environmental and forest clearances would be granted within a pre-specified time frame. Though local value addition would be given priority, the Government would encourage iron ore trading in order to make this essential raw material available to the iron and steel industry throughout the country. The Government would encourage investments in adding value to iron ore fines. Scientific mining and economies of scale would also be encouraged.	Iron ore requirement for the SAIL plants would increase from the present level of 25 MTPA to 43 MTPA by the year 2010-11 and based on the Directional Plan prepared, to a level of around 100 MTPA by 2020. The following steps have been initiated/envisaged: (i) Development of new mines at Chiria to produce 7 MTPA initially and subsequently increase to 15-20 MTPA (ii) Development of new mine at Rowghat to produce 14 MTPA as a replacement of Rajhara and Dalli mines of Bhilai Steel Plant. (iii) Development of a new mine at Thakurani to produce 2 MTPA (iv) Development of new mine at South Block and Central Block as a replacement of Kiriburu and Megahatuburu mine respectively (v) Development of Taldih Iron Ore Deposit to produce 3-4 MTPA Expansion of Bolani mine from present level of 3.5 MTPA to 5 MTPA . **<u>Current initiatives in iron ore mining</u>** • Efforts for renewal of mining lease and reservation of Chiria • Efforts to get the Prospecting license for Thakurani • Efforts to get forestry clearance for Rowghat • For modernization of mine and setting up of a pellet plant, SAIL has joined hands with KIOCL for Taldih mine • With setting up of 600T/hr. crushing plant, capacity of Bolani iron ore mine has enhanced • South Block and Central Block are being developed for giving production in FY 2009 and 2008 respectively to supply iron ore to Bokaro Steel Plant

5	**<u>Coking Coal</u>:** By 2019-20, about 70 MT of coking coal will be required, of which 85 percent will have to be imported. The imperatives of coking coal security require that new sources of coking coal be tapped. Accordingly, the Government would aim for the coal sector to become market-driven, but in the meantime continue allocation of captive coking coal blocks to steel plants, and establish mechanisms to share their surplus resource with other steel plants. • The Government would encourage joint ventures and equity participation abroad by steel and coal companies. • Simultaneously, efforts would be made to develop and adapt technologies, which have synergy with the natural resource base (non-coking coal) of the country. • The steel industry would be encouraged to make investments in washing and beneficiation of coal.	*Acquisition of Indigenous Coking Coal blocks* In order to meet the increased coking coal requirements, SAIL has envisaged acquiring indigenous coking coal blocks from Ministry of coal along with forging strategic alliance with domestic coking coal companies to increase domestic coal availability to level of 8-10 MTPA. <u>Moonidih</u>: ▪ SAIL had entered into an MoU with BCCL in April' 06 for funding phase- 1 upgradation of Moonidh Mine at 16 top seam. ▪ SAIL has also agreed in principle to fund development of seam 15 of Moonidih mine. These two actions will help augment washed coal availability by around 1.5MTPA. <u>Kapuria:</u> SAIL is also having dialogue with BCCL/CIL, Ministry of Steel & Ministry of Coal to become a partner in development of Kapuria mine with BCCL. <u>Tasra:</u> Development of Tasra Block is in progress. Production is planned to start by Sept' 07. <u>Sitanala:</u> The block has been allocated to SAIL for captive mining in April' 07. Compliance of formalities for transfer of lease and development of block is in progress. *Strategic Alliance with foreign mining companies* SAIL is aiming to forge strategic alliance which coal mining companies in overseas territories through acquisition of ownership interest / equity in mining projects. This would provide security in supplies for certain minimum quantity of coking coal. It is also proposed to set up an SPV comprising SAIL, Coal India, NTPC & RINL for the purpose of acquisition of suitable coking coal assets. The proposal is awaiting approval of Cabinet. Govt. support will be sought where intervention is required at Govt. level in other countries.

6	**<u>Natural Gas</u>:** Considering the importance of gas based steel plants due to (a) environmental cleanliness, (b) shortages of coking coal required for other major routes, and (c) natural gas being a feedstock for sponge iron plants and not just a heating source, the present system of allocation and pricing of natural gas to the steel sector would remain under continual review.	SAIL visualized the importance of usage of gas in steel plants and has taken the following initiatives: • SAIL signed an MoU with GAIL in Feb.,05 for supply of natural gas by 2006-07 but due to sourcing constraints, GAIL has indicated that it may be able to supply from 2009 onwards. • SAIL also submitted an offer to ONGC for supply of Coal Bed Methane to BSL from Jharia coal field.
7	**<u>Roads</u>***: T*he existing road network needs to be expanded and strengthened considerably for reducing the transaction costs of the Indian producers. The steel plants and mines need to be integrated with the on-going programmes of national highway development and also with the proposed rural road schemes for expanding the delivery chain of steel across the country, especially the rural areas. The steel industry would be encouraged to create links to the nearest available highways. But the task of expanding the highway network would continue through public-private partnerships.	• For raw materials transportation, SAIL is using roads only for 2% of its requirements. • For marketing finished steel by using road network, it is only around 8%.

8	**Railways:** • The Railway facilities would need to be expanded substantially in view of the renewed investor interests in the creation of additional steel capacities – both in Greenfield and brown-field projects. • The outlay for railways as a percentage of total plan outlay has come down from 10.3 percent (up to 4th Plan) to 6.8 percent (10th Plan). • Resource constraints may necessitate participation by the steel industry in the creation of railway infrastructure, especially in the capital-intensive areas of laying tracks and procuring wagons. • Besides ensuring availability, the railways would also need to re-examine their freight structure and improve quality of services. Dedicated freight trains in the private sector would be encouraged.	Freight movement by rail to and from the SAIL plants is expected to increase from 60 MT in 06-07 to around 100 MT by 2010-11. This translates to a requirement of 30 additional rakes per day by 2010-11 for inward and outward bound traffic, compared to around 44 rakes per day at present. SAIL has decided to procure two BOXN rakes under the railways wagon investment scheme and has submitted its offer. Railways have been asked to clarify certain issues and the reply is awaited. For modification & upgrdation of Rail logistics inside steel plants, M/s RITES have been engaged to suggest measures. Some of the recommendations of RITES are in different stages of implementation. Railways may be asked to integrate their long term plans with RITES recommendation. SAIL participated in the EOI for Paradeep-Haridaspur railway line (Port connectivity schemes of railways/GoI) which will ease movement of imported coal from Paradeep to SAIL steel Plants. SAIL has signed the SHA for equity participation. The Traffic Gurantee Agreement is in the process of finalization. SAIL is also considering to procure 5 BOXN rakes under Wagon Investment Scheme for movement of iron ore & imported coal. Railways have been approached to grant necessary permission.

9	**Ports:** The current Government policy allows private capital in port development. Steel producers would be encouraged to develop port and berth facilities so as to improve productivity, turn around time, capacity to handle larger vessels and other operational parameters of efficiency.	As per Corporate Plan of SAIL, with the enhanced use of imported coking coal envisaged and also increased quantum of coal requirement, access to better port facilities would be critical. SAIL has taken the following actions for meeting the increased requirement of imported coal: Long-term agreement signed with BOT operator M/s International Seaports (Haldia) Pvt. Ltd. with minimum cargo commitment of 2.3 MTPA of imported coking coal through fully mechanized system at berth No.4A of Haldia. This berth has since commenced operation. Discussions with M/s Vizag Seatport Pvt. Ltd. (VSPL) for providing various facilities at Vizag Port are in progress. Discussions with other private ports in the eastern sector have been initiated for utilizing their facilities.

10	**Power:** • Requirement of power by steel industry would be 7000MW by 2019-20, requiring an investment of Rs 24,500 crores.. • Electricity Act, 2003 & National Electricity Policy allows captive generation of power & trading of surplus power-facilitate investment in captive power plants by steel industry. • GoI would encourage bringing down specific consumption of power, esp in the secondary sector.	Present requirement of power by SAIL Plants is around 800MW per year which would go up to 1600MW per year by 2010-11. Additional Power requirement would be met by augmenting capacity of the JV Power Plants. Utilising provisions of Electricity Act 2003, wheeling of power from DSP to BSP is being done since 2004. SAIL has reduced its power bills by about 25-30 Cr. p.a. by such wheeling. Specific power consumption is closely monitored and controlled at al SAIL Steel Plants.
11	**R&D**: Aggressive R&D efforts would, therefore, be mounted to create manufacturing capability for special types of steel, substitute coking coal, enrichment and agglomeration of iron ore fines, develop new products suited to rural needs, enhance material and energy efficiency, utilize waste, and arrest environmental degradation. Public sector steel companies would enhance R&D expenditure in the coming years to finance internal R&D efforts and sponsor outside research, which may provide a framework for inter-disciplinary cooperation with the private sector across national boundaries. Government's contribution to fostering basic and applied R&D will be enhanced.	SAIL has an R&D Centre at Ranchi. The Centre takes up projects which provide technological inputs to SAIL Plants with thrust on cost reduction, value addition, quality improvement, process innovations and development of new products. During the last 3 years, 232 No. of projects have been completed. SAIL has spent around Rs77 Cr. on R& D activities in 2006-07.
12	**Financial Resources:** • To mobilize vast resources, direct foreign investment would be encouraged. • In addition the external commercial borrowing norms would be reviewed periodically to facilitate smooth inflows of debt, and to bring down the cost of capital. • Steel is one of the six sectors that figure in the index of industrial production for "infrastructure," but the fiscal incentives available to the infrastructure projects are not available to the steel industry. Suitable incentives would therefore be devised for the steel industry. • The efforts of various stakeholders to develop risk-hedging instruments like futures and derivatives would be supported.	SAIL has planned an investment of around Rs40000 crores by 2010-11 for modernization and expansion of steel plants and mines. Financing of investment would primarily come from internal resources and D.E. ratio would be maintained as 1:1. SAIL would resort to External borrowings only if it is not able to generate internally with an appropriate financing plan.

13	**Human Resources** • Additional workforce of 220,000 by 2020 for production of 110MT. • Creation of 1 man-year of employment in the steel industry generates an additional 3.5 man-years of employment elsewhere like transport, mining, construction, machinery, and steel fabrication. • Total additional employment of around 1 million. Profile-skilled & semi-skilled. • Availability of scientists, engineers & technicians in India is 7.05 compared to 113 in Japan,90 in UK,53 in Korea,54 in Australia & 85 in Germany. • Technical & professional institutes required to impart new competencies & capabilities in tune with change in technology.	SAIL proposes to reduce its manpower overall but plans to induct skilled manpower whenever required particularly when new technology is adopted or modernisation takes place. This year SAIL has inducted around 1300 employees, including 110 Junior Manager (Projects) and Management Trainees (Tech.) to take care of its expansion plans. Current manpower of SAIL is 1,32,973 as on 31.3.07.

When asked as to what efforts have been taken by SAIL in pursuance of the 'National Steel Policy', the management of SAIL in their written reply stated as follows:

"Government of India had announced National Steel Policy in 2005 which addresses necessity of modern and efficient steel industry of world standards, catering to diversified steel demand. National Steel Policy indicates that growth of steel consumption is expected to reach about 110 million tonnes by 2019-20 with CAGR of 7.3% (figures being revised by GOI), IISI has estimated higher growth and estimated demand in the range of 150-180 Mt by 2020.

The Corporate plan of SAIL envisages CAGR of more than 8% during the plan period. Besides capacity enhancement, the growth plan adequately addresses the need of SAIL plants towards eliminating technological obsolescence, energy savings, improving product quality and enriching product mix, pollution control, developing mines & collieries to meet higher requirement of key inputs, to introduce customer centric processes and matching infrastructure facilities in the plant to support higher production volumes. This would also help in attaining cost and quality competitiveness, along with growth.

SAIL has embarked on a modernization and expansion programme envisaging to substantially raise hot metal production from 14.6 MT (2006-07) to 26.18 MT by 2010-11.

The National Steel Policy is targeting up to 2019-20 whereas SAIL's Corporate Plan is up to 2010-11. Beyond the Corporate Plan, SAIL is preparing a directional plan up to 2019-20 to meet the objectives laid down in the NSP and also to retain market dominance in this competitive era."

CHAPTER-XVI

INFRASTRUCTURE REQUIREMENT

Regarding the current status of port infrastructure and the constraints being faced, SAIL have in their reply stated as follows:

"Port infrastructure at West Bengal and Orissa

SAIL operates mainly at Haldia port in West Bengal, and at Paradip in Orissa. Kolkata port in West Bengal is used for handling minor quantities of imports like stores and spares, refractories, rolls etc mainly containerized cargo. Haldia port is used for import of coal and export of steel items and is preferred logistically to cater to the Steel Plants at Bokaro, Durgapur and Rourkela. Paradip port is also used for import of coking/non-coking coal and serves mainly Rourkela Steel Plant.

Meeting the demands of the Company with the present port infrastructure is challenging. The infrastructure available at Paradip and Haldia Ports are not adequate to meet SAIL's requirements in future. Some of the major constraints at these ports to handle large quantity of coking coal are as under:

Haldia:

Draft availability of about 7-8 M restricting handling of large parcels.
Limited shore unloading facilities thereby affecting
(a) Efficiency and ability to handle gearless vessels.
(b) Availability of export vessels

Paradip:

Draft availability of 12.5 M restricts handling of bigger Panamax vessels at Paradip.
Inadequate shore handling facilities thereby
(a) Resulting in reduced efficiency
(b) Resulting in inability to handle gearless vessels.
Inadequate Railway rake availability
Inadequate back-up area for storage.

SAIL has a captive berth at Haldia under MOU with BOT operator for handling coal vessels.

SAIL has taken up the issues of requirement of necessary infrastructure development with Haldia Port, Paradip Port.

Deep draft port with private participation is coming up at Orissa. SAIL is exploring the possibility of utilizing these facilities in the future."

On being further asked as to whether SAIL has taken up the issue of infrastructure development with Haldia Port and Pardip Port, the management of SAIL in their written reply have stated as follows:

> "The issue of development of infrastructure at Haldia Port has been taken up with the port authority. As a result, various developmental works are being contemplated by Haldia Port as given below:
>
> Installation of shore handling facility at Berth No. 2 and 8. The port authority has also planned to reserve the above 2(two) berths for handling steel industry related cargo. SAIL has conveyed commitment on minimum guaranteed throughput of 1.5 million tonnes at Berth No. 2 and 8 which is under examination of port authority.
>
> Haldia Port is planning to develop 2(two) reverine jetty for handling of barges. SAIL has requested to develop the jetty equipped with shore facilities, back up area, railway siding etc. for handling of imported cargo.
>
> The port is also developing a multipurpose berth which shall be available for export vessels."

PART-II

OBSERVATIONS/RECOMMENDATIONS OF THE COMMITTEE

PHYSICAL PERFORMANCE

Recommendation No. 1

Capacity Utilization

The Committee are happy to note that the capacity utilization of the majority of steel plants of SAIL is above 100%. Keeping in view the fact that domestic demand for steel in construction sector has been steadily growing in recent times and is estimated to grow further, the Committee recommend that SAIL should strive to further improve its techno-economic parameters and achieve higher capacity utilization and expedite measures for upgradation and expansion to meet the growing demand of steel in the country.

Recommendation No. 2

Blast Furnace Productivity

The Committee note that SAIL has a lower productivity of blast furnace when compared to other major private/public steel producers of the country like Tata Iron & Steel Company (TISCO) and Rashtriya Ispat Nigam Ltd. (RINL), the reason attributed therefor ostensibly is inferior quality of iron ore content and higher impurities. The Committee have been further informed that the blast furnace productivity will improve with the induction of state of the art technology as part of the modernization and expansion plans. The Committee, feel that SAIL being a navratna company should not lag behind other private companies in terms of increasing its blast furnace productivity on the pretext of improvement after modernization and desire that the blast furnace productivity of SAIL steel plants should be brought at par with the major private/public steel producers of the country.

Recommendation No. 3

Coke Rate

The Committee have been informed that the coke rate according to SAIL means the amount of coke consumed per tonne of hot metal produced in the blast furnace. The Committee note that the coke rate of SAIL is higher than the coke rate of major steel producers such as RINL, TISCO. The Committee have been further apprised that to reduce the coke rate, SAIL has taken various steps such as maximizing the usage of sinter, using pulverized coal injection and installing bigger volume blast furnace etc. The Committee believe that the reduction in coke rate is a key factor for increasing the profitability of the Company and therefore expect that the reduction in coke rate shall be achieved by 2010 as claimed by SAIL authorities.

Recommendation No. 4

Project Implementation

The Committee are unhappy to note that some of the major projects currently under execution are unlikely to be commissioned as per schedule due to delays on the part of suppliers in supply & erection of equipment and delay in timely handing over of site due to operational requirement etc. The Committee strongly feel that speedy implementation of the above projects is essential to reap the benefits of the ongoing favourable market situation and full use of the expansion programme of SAIL. The Committee, therefore, recommend that the issue of timely delivery of equipments and handing over of sites should be taken up with the concerned suppliers at different levels. The Committee further recommend that suitable deterrent measures be incorporated in the agreements with the suppliers to take care of avoidable delays on the above issues.

As regards the other aspects of project implementation, the Committee are happy to note that the status of various projects is strictly monitored on day-to-day basis. The major projects are found to be further reviewed at the level of Secretary, Ministry of Steel and also Minister of Steel on quarterly basis. Although effective monitoring mechanism is already in place yet the Committee feel that further strong measures are required to be taken to eliminate delays at various stages of the projects.

Recommendation No. 5

Financial Performance

The Committee are happy to note that SAIL has turned out into a profitable company from 2003-04 and has gone on to make a profit of Rs. 6202 crore in 2006-07. In this regard, the Committee note that 45% of the profit has come on account of market improvement i.e., increase in international steel prices, while 55% has come from internal efficiency parameters like increase in capacity utilization, reduction in energy consumption, increase in production of value added products and right sizing the number of employees etc. While appreciating the Company's performance, the Committee are of the view that one of the factors that has contributed to the Company's profit is availability of cheap iron ore from captive mines. In this regard, the Committee believe that in case SAIL do not get cheap iron ore from captive mines in future and if they have to buy it at international rates, it would certainly affect its profitability. The Committee therefore recommend that SAIL instead of caught napping should get itself prepared for a situation wherein they would have to source iron ore at high international prices and yet make profits.

RAW MATERIAL SECURITY

Recommendation No. 6

The Committee note that iron ore, coking coal and thermal coal are the critical raw materials for the steel industry.

Iron Ore

Grant / Renewal of Captive iron ore mining leases

The Committee note that captive iron ore mining is the main source of iron ore for SAIL. SAIL has some captive iron ore mines, chief of which is the Chiria Iron Ore Mine in Jharkhand. The Committee further note that the existing iron ore resources with SAIL are limited and would exhaust within the next few years. Chiria mines has been identified by SAIL as the only potential source which can cater to the increased production requirements of 26 million tonnes by 2010. Apart from Chiria, SAIL would also require new iron ore resources to meet its growth plan. The Committee are, however, concerned to note that the issue of grant/renewal of Chiria iron ore mining lease to SAIL has been long pending because of some reservations of the State Government of Jharkhand and the matter is presently sub-judice and pending in Court. Meanwhile, the efforts made by SAIL/Ministry of Steel for amicable solution of the issue has also not yet yielded any positive result in the matter.

The Committee observe that due to increasing boom in the steel sector, the issue of grant/renewal of iron ore mining leases is becoming very complex issue due to conflicting interests between various stake holders like mining companies and exporters, steel producers and the concerned State Governments. In view of this, the Committee feel that there is a need for a clear national policy to address the concerns of the stake holders particularly the producers contributing immensely to national economy. Keeping in mind the basic national interests and national goal of economic growth as enunciated

broadly in XI Plan document an appropriate National Mineral Policy must determine the contours which can facilitate Navaratnas like SAIL to use its full potential. Careful consideration need to be given to the views of the key operators like SAIL in this regard. The Committee feel that there is of course a need to augment the revenues of States by increasing the royalty rates. At the same time, the Committee like to add that in the present case SAIL has got a legitimate case for retaining Chiria iron ore mine as it has already developed various infrastructure there besides absorbing an accumulated loss of Rs. 910 crores during amalgamation of Indian Iron & Steel Company (IISCO) with SAIL in 2005. It is well known that IISCO alongwith its properties Chiria and Gua iron ore mines were available for disinvestment from 1996-2001 but not a single global/domestic player had shown any interest in it during that period. The Committee, therefore, strongly recommend with all the conviction that the Government of India should deal with this issue of national interest at the highest priority for grant of mineral concession of Chiria iron ore mine to SAIL.

The Committee also note that the Government of India is presently amending the Mines and Minerals (Development and Regulation) Act (MMDR) Act 1957 for streamlining the procedure for grant/ renewal of mining leases in the country. The Committee feel that any delay in grant/renewal of mining leases would immensely harm SAIL and overall national interests.

Recommendation No. 7

Development of iron ore mines

The Committee note that in order to ensure availability of iron ore for steel production, the development of iron ore mines is of paramount importance, which depend on the timely grant/renewal of captive iron ore mining leases and obtaining forest & environment clearances. The Committee are unhappy to note that though the Ministry of Steel is in continuous dialogue with Ministry of Environment and Forests, respective State Governments and other nodal agencies to expedite forest and environmental clearances for the mines, there has been inordinate delays in granting these clearances by the concerned agencies. Even the expansion and modernization of existing mines is also being delayed due to the lengthy, cumbersome and time-consuming procedures associated with getting these forest and environmental clearances. The Committee recommend that the number of stages and the levels in the processing of applications should be considerably reduced and forest and environmental clearances should be granted within a pre-specified time frame. The Committee further recommend that the Government should examine the feasibility of adopting international norms in this regard, which stipulate fixed timeframe for grant of various clearances.

Recommendation No. 8

Export of iron ore

As regards the export of iron ore, the Committee note that there has been a high level of export of iron ore from India. As per the information made available to the Committee during 2006-07, India produced 180.66 millions tonnes of iron ore out of which 93.79 million tonnes was exported. The Committee are apprehensive that the continued export of iron ore will affect the long term availability of iron ore for domestic steel production and may even lead to a situation, wherein, the country may have to import iron ore for producing steel. The Committee are of the firm opinion that all out efforts be made to conserve the scarce iron ore to safeguard the future steel requirements of the country. The committee, therefore, strongly recommend that the Government may take all necessary steps to discourage the export of iron ore, may be by means of putting in place some stringent fiscal measures like hike in export duty etc. and/or other suitable policy measures.

Recommendation No. 9

Gainfull utilization of fine iron ore

As regards the utilization of fine iron ore, the Committee are unhappy to note that the fines are not gainfully utilized by SAIL. The Committee note that as part of the current expansion plan, SAIL has planned to set up new Sinter plants and new pellet plants for higher usage of fines. The Committee further note that though the new technology in steel making such as Corex which have the potential to use fines for steel making has been commercialized even in India, the same has not yet been applied by SAIL in its plants but only under examination for its corporate strategy beyond the year 2010. The Committee therefore while expressing their concern at such sluggish approach of SAIL towards adoption of high end technologies, recommend that SAIL should timely induct such new technologies of steel making for increasing the gainful utilization of fine iron ore.

Recommendation No. 10

Coking coal

Acquisition of coking coal equity abroad :

The Committee note that due to poor availability of indigenous coking coal from Coal India Ltd. (CIL), around 75% of the coking coal requirement of steel PSUs is being met by imports. The quality of Indian coking coal is also not suitable for steel production. Thus the acquisition of coking coal equity abroad is essential for the raw material security of SAIL.

The Committee note that SAIL explored the possibilities of participating in acquiring stakes in coking coal projects in Australia, Mozambique, Russia, Poland etc., but could not acquire any stake as none of the companies abroad wished to dilute their equity stakes in favour of other partners. In fact most of those coking coal companies are found to be in the acquisition mode rather than in the disinvestment mode. The response to SAIL's issue of expression of interest, inviting overseas coal mining companies to offer equity has also been lukewarm. The Committee have been informed that a Special Purpose Vehicle (SPV) in which SAIL has invested Rs.1000 crores is being set up for securing coking coal from foreign countries. The Committee feel that the proposed SPV should have been set up a couple of years earlier. In the present scenario where global mergers & acquisitions have already taken place for securing raw materials, the Committee doubt the possible success that the SPV could achieve in securing coking coal. The Committee nevertheless recommend that the SPV should begin its operations immediately and should follow suitable modalities for achieving its objectives. The Committee further recommend that the SPV should act on war footing for acquiring coking coal mines abroad.

The Committee note that the National Steel Policy has suggested that in terms of future policy, exports of iron ore, especially high grade lumps would be leveraged for imports of coking coal. Keeping in view large scarcity of coking coal, the Committee feel that this is a good proposition and therefore recommend that the Government should make efforts to secure such agreements from those countries.

Recommendation No. 11

Tapping new resources of coking coal within India :

The Committee note that SAIL would require 23million tones (MT) of coking coal by 2010, as part of its Corporate Plan as against the present requirement of 15 million tones per annum (MTPA). The Committee also note that around 75% of the present requirement is being met by imports. The Committee therefore feel that there is an urgent need to tap new resources of coking coal within India. The Committee have been informed that SAIL is acquiring new coking coal blocks such as Tasra block, Sitanala block etc. The Committee further note that SAIL is also entering into a Joint Venture (JV) with Tata Steel for developing medium coking coal blocks. The Committee recommend that such proactive steps should be pursued to their logical conclusion.

Recommendation No. 12

Thermal Coal

The Committee note that thermal coal is another important raw material required for operating captive power plants of SAIL. With implementation of Corporate Plan, SAIL's power requirement will increase substantially to around 18 million tonnes per annum (MTPA) against the present 4-5 MTPA. The Committee also note that SAIL had submitted 18 applications to Ministry of Coal for allocation of thermal coal blocks. However, none of the blocks have been allocated to SAIL, which are allotted by the process of competitive bidding. The Committee have been informed that the process of competitive bidding will hurt the interest of SAIL as the production costs of the mineral will increase, thereby affecting SAIL's competitiveness, both in domestic and international market. Moreover the process of competitive bidding will prove disadvantageous to the PSUs as compared to private sector due to their prevailing procedural complexities. Considering the social obligations entrusted to public sector undertakings in the country, the Committee recommend that SAIL may be allocated atleast 2-3 thermal Coal Blocks on nomination basis with reserves of about 1200-1500 million tones to meet their captive coal requirement.

EXPANSION AND MODERNISATION PROGRAMME

Recommendation No. 13

Corporate Plan-2010

The Committee note that SAIL has embarked on an expansion and modernization programme involving total investment exceeding Rs.50,000 crores. According to SAIL's corporate plan 2010, the target of annual production has been fixed at 26 million tons (MT) of hot metal as against the present 13 MT. The Committee also note that the Corporate plan envisages annual growth rate return of more than 8% Compounded Annual Growth Rate during the plan period. Besides capacity enhancement, the growth plan adequately addresses the need of SAIL plants towards eliminating technological obsolescence, energy savings, enriching product mix, pollution control, developing mines & collieries to meet higher requirement of key inputs, to introduce customer centric processes and matching infrastructure facilities in the plants to support higher production volumes. In this regard, the Committee note that SAIL has taken up various measures like strengthening of project organization, coordination across plants, interactions with global suppliers, across the table discussions for faster tendering process, etc. to complete the expansion plan in time.

The Committee, however, are concerned to note that the implementation of Corporate Plan-2010 faces a number of impediments like non-renewal of mining leases of Chiria and Gua by Jharkhand, delay in grant of prospecting license to Thakurani iron ore mine, delay in obtaining clearances for Rowghat iron ore mining project in Chattisgarh, non-allocation of thermal coal blocks to SAIL for captive power plants, inadequacy of rail network, ports etc. which are the key concerns in the implementation of Corporate plan.

The Committee are extremely concerned to note that if leases of Chiria mine are not renewed immediately, SAIL will have serious problem in proceeding with modernization & expansion plan. The Committee are of the view that the renewal of Chiria mining lease is extremely essential for the profitable sustenance of SAIL. The Committee also note that delay in forest & environment clearances could affect the expansion plan. The Committee are apprehensive that the Chiria issue and the issue of delay in clearances would determine the fate of SAIL. The Committee, therefore, desire that the Government of India should address all these issues with utmost seriousness and help out the SAIL at this critical juncture by making all out efforts in this direction.

NEW STRATEGIC INITIATIVES

Recommendation No. 14

Merger / Acquisition of steel PSUs

The Committee note that consolidation/merger of steel PSUs will help PSUs to acquire global size of operation in order to attain global scale and synergize operation and bring down cost of production. The Committee are of the view that the merger of steel PSUs with SAIL would bring far reaching benefits like consolidating their strength in terms of competitiveness and distribution of raw material among the steel PSUs etc,. The Committee feel that strong backward and forward linkages are required to effectively cope with the powerful dynamics of a globalised steel industry. The Committee note that the proposal for merger of Neelanchal Ispat Nigam Ltd. (NINL), Maharashtra Electroskmelt Ltd. (MEL), etc. with SAIL are under the active consideration of the Ministry of Steel. The Committee recommend that these proposals should be expedited and should be pursued to their logical conclusion. The Committee further recommend that the complexities involving these mergers should also be sorted out soon. The Committee also feel that while merging smaller companies with SAIL, due considerations should be given to the economies and financial impact thereof on SAIL without ignoring the interests of workers and social obligations entrusted to public sector undertakings in the country.

As regards the merger of Rashtriya Ispat Nigam Ltd. (RINL) with SAIL, the Committee have been informed that the proposal for merger of RINL with SAIL is not presently under active consideration. The Committee desire that the merger of RINL with SAIL should be revisited to see if any new consensus could be reached in the present steel scenario.

Recommendation No. 15

Setting up new steel plants

The Committee are happy to note that SAIL intends to set up two new steel plants, one in the State of Jharkhand and the other in the State of Chhattisgarh as a joint venture. As regards the setting up of steel plant in Jharkhand, the Committee note that an MOU is yet to be signed with the Jharkhand State Government. The Committee desire that the process of signing an MOU with the Jharkhand Government should be vigorously pursued, as it would secure one billion ton of iron ore located in Chiria. The Committee however recommend that SAIL should assess the issue cautiously while making all out efforts to see that the Chiria lease is firmed up in favour of SAIL.

As regards the status of steel plant in Chhattisgarh, the Committee recommend that necessary strategic initiatives be expedited and hope that new steel plant will definitely yield the desired results.

Recommendation No. 16

Marketing

The Committee note that the market share of SAIL in finished long products is only 14.4% during 2006-07 in the domestic market. As regards the flat products, SAIL has a share of approximately 28% in the domestic market. The Committee also note that SAIL is not a major player in the finished long products (i.e, bars and rods) in the domestic product. While appreciating the fact that SAIL constitutes over 90% share of the Railway materials, the Committee are unhappy to note that the market share of SAIL in Bars & Rods and Structurals is around 8% and 19% only and the market share of SAIL has not increased during the last two years due to non-availability of additional steel. However, the additional steel available after 2010 would be marketed by evolving future marketing strategies like E-sales, value added steel for high-end customers, Retail outlets, etc. and as such, there will be improvement in the market share of SAIL after the implementation of Expansion Plan in 2010

As regards the steps taken for popularizing SAIL products in the rural market, the Committee note that SAIL has taken a massive plan of increasing the distribution network in every district of India by way of appointing district dealers for marketing mainly Thermo Mechanically Treated Bars(TMT) and Galvanized Plain/Galvanized Corrugated Sheets (GP/GC), which are used by rural customers for their requirement. In this direction, the SAIL has already covered 602 out of 603 districts with appointment of dealers and subsequently process is also on to reach the material to sub-block levels for easy availability to ultimate consumers in the rural market.

In the above backdrop, the Committee recommend that SAIL, an integrated steel major, should pull up its socks and come out with some

aggressive marketing strategies at the earliest, to maintain its pre-eminent position in the competitive steel market especially in finished long products. While appreciating the initiatives made by SAIL to penetrate rural market, the Committee also desire that in order to promote steel consumption in rural areas, SAIL should organize *Grameen Ispat Melas* in villages. The Committee further desire that SAIL should try to increase its exports by opening marketing offices abroad also. The Committee hope that the marketing share of SAIL would improve, once additional steel is available, after the expansion plan is completed in 2010.

Recommendation No. 17

Research and Development

The Committee feel that R&D plays a vital role in the steel sector in designing and development of new technologies, development of new value added products, improvement in productivity and quality and reduction in consumption of raw material. The Committee are happy to note that SAIL has an elaborate research facility comprising 15 major laboratories and have achieved distinction in various fields such as coal carbonization, iron making, sinter making, continuous casting, steel making, energy conservation, information technology, etc. The Committee however note that R&D expenditure of SAIL as a percent of turnover is barely 0.2%. The Committee therefore recommend that SAIL should spend more on R&D, so that it can achieve global competitiveness, not only in terms of cost and quality but also in terms of global benchmarks of efficiency and productivity.

The Committee further note that that SAIL could not invent any break-through technology for the using of low grade coal for manufacturing of steel in a large way. The Committee therefore desire that the R&D Unit of SAIL should take more pro-active steps for using low grade bituminous coal, which is available in plenty in India, for the manufacturing of steel.

Recommendation No. 18

Export Performance

The Committee note that SAIL continues to be primarily a domestic player. The value of exports of SAIL in 2006-07 has declined to Rs. 941 crore from Rs. 977 crore in 2005-06 though the Government is providing export incentive by way of Duty Entitlement Passbook Scheme to SAIL. The Committee further note that SAIL's exports are mostly directed towards neighbouring markets like Bangladesh, Myanmar, Nepal and Sri Lanka. The Committee are not convinced with the export performance of SAIL. The Committee are unhappy to note that a Navratna company of the stature of SAIL is exporting a very limited range of products covering mainly Semis and Plates. The Committee feel that the export performance of SAIL needs further improvement. The Committee recommend that SAIL should take more proactive steps by increasing its presence in global markets as well as including new value added steel products in its export basket.

Recommendation No. 19

Energy Conservation

The Committee note that energy conservation is one among the important techno-economic efficiency parameters of a steel plant. In this regard, the Committee note that SAIL is exploring the possibility of using Natural Gas (NG) as an auxiliary fuel in blast furnaces to reduce expensive coking coal consumption and has already signed a MoU with GAIL for supply of gas to steel plants and is also exploring a possibility of tie-up with ONGC for supply of Coal Bed Methane(CBM) to SAIL plants. The Committee are happy to note that the issue of alternate sources of energy such as NG and CBM will reduce the operating cost and increase the profitability of the Company. To facilitate the above tie up, the Committee recommend that the Ministry of Steel should take up this issue of supply of gas with the Ministry of Petroleum and Natural Gas, for making available CBM from ONGC to SAIL's plants. In addition to that SAIL may also explore the feasibility of sourcing CBM and Natural Gas from private companies.

The Committee are also happy to note that SAIL has installed pulverized coal injection and Coal tar injection as a step to reduce the consumption of coking coal. The Committee recommend that SAIL should install this pulverized coal injection/Coal tar injection facility in all its blast furnaces within the stipulated time frame as planned under the expansion and modernisation programme i.e. by 2010.

Recommendation No. 20

Environmental Protection

The Committee note that the process of steel making has significant environmental ramifications like Air pollution, Water Pollution, Noise pollution & Solid Waste generation . The Committee are happy to note that SAIL has taken various measures to check / abate environmental pollution. To check air pollution, SAIL has taken various steps such as regular maintenance of Coke Oven Batteries, cleaning of coke oven doors, installation of various pollution control equipment like Multi Cyclones, Bag Filters, setting up Gas Cleaning Plants in steel plants etc., As regards water pollution control, SAIL has taken various steps such as recycling the effluents, meticulous maintenance of the effluent treatment plants etc. To curb noise pollution, SAIL has provided the employees with ear plugs/ ear muffs etc. and on solid waste management, selling steel plant wastes to outside agencies, recycling of hazardous wastes etc., have been done. Further, SAIL has made significant progress in reducing Green House Gas emissions by taking various steps such as phasing out of the old energy intensive process with cleaner technologies, replacement of conventional motors with energy efficient motors, Commissioning and operation of Coal Dust Injection (CDI) in Blast Furnaces (BF), use of solar energy in their premises, planning new installations with high energy and material efficient technology under modernization plan etc,.

The Committee are, however, concerned to note that despite all the laudable steps taken for protecting environment, SAIL has received three adverse reports from West Bengal Pollution Control Board with respect to water and air quality. The Committee recommend that SAIL should strictly monitor all the air and water quality parameters in all its installations. As India

has certain commitments towards 'Climate Change' in the post Kyoto protocol period, the Committee desire that SAIL should strive for meaningful reductions in Green House Gas (GHG) emissions.

Recommendation No. 21

Manpower

The Committee note that the manpower strength of SAIL is 119009 (excluding IISCO merged in 2005) during 2006-07 and another 700 engineers as well as employees in Class II, Class III, and Class IV are being added through recruitment to take care of capacity expansion.

As regards the labour productivity, the Committee note that the labour productivity has almost gone up by six times since the mid eighties. The Committee however note that the labour productivity of SAIL is comparatively lower than some other steel plants in the country as well as by international standards. The Committee recommend that the Company should put in place incentive schemes for employees to improve their efficiency. The Committee also desire SAIL to ensure that the skills of employees are continuously upgraded by regular training in the areas like process control, quality management, latest adopted technologies in order to further improve the productivity.

Recommendation No. 22

Safety Measures

The Committee note that SAIL has taken various safety measures such as putting in place a safety policy, setting up of standardization committee on safety, internal & external safety audits, preparation of on-site disaster management plans, mandatory safety training to employees and contractor workers also. Despite all the laudable steps that have been taken by SAIL, Committee note that fatal accidents have continued to occur year after year. The average number of fatal accidents that have occurred in SAIL's plants is found to be 23 in a year. The Committee have been informed that SAIL has been making consistent efforts to reduce the accident rate to 'Zero accident rate'.

The Committee are dismayed to note that given the accident cases reported in SAIL, the measures taken/being taken by SAIL have not been found to be adequate. Although SAIL has made tall claims about their safety measures, yet it has not been able to achieve zero accident rate. The Committee would like to emphasize that accidents are not only disastrous to the workers and the people nearby but also cause damage to the assets of the company. The Committee therefore recommend that SAIL should further strengthen its safety measures and ensure their strict compliance so that the intended objective of achieving 'zero accident rate' in all its units is achieved.

Recommendation No. 23

The Role of Ministry - National Steel Policy

The Committee note that the Ministry of Steel has an important role to play in Policy formulation regarding production, distribution, pricing of iron & steel and ferro alloys. The Committee further note that the Government have announced a National Steel Policy-2005 (NSP) to create a modern and efficient steel industry of world standards. The Committee note that National Steel policy has a strategic goal of achieving indigenous production of steel at the level of around 110 MT per annum by 2019-20, which implies a compounded annual growth of 7.3 percent per annum. Raising rural consumption of steel from 2 kg per capita per annum to 4 kg per annum by 2019-2020, encouraging exports, making available critical inputs such as iron ore, coking coal, natural gas, making available good infrastructural facilities such as roads, railways, ports, power, enhancing R & D expenditure, human resources etc., are the major objectives of the NSP.

The Committee are dismayed to note that NSP does not propose any concrete mechanism to address important issues such as problems faced in obtaining grant/renewal of mining leases and inordinate delay in obtaining forest/environment clearances etc., which hamper the growth and development of steel industry. The Committee note that all 'Corporate Plans' and 'Expansion Plans' of steel PSUs such as SAIL, RINL, and private steel companies, that are being implemented in pursuance of the goals of NSP will be adversely affected if the above-mentioned difficulties are not addressed in the right earnest.

The Committee are disappointed to find that the NSP is too inadequate in addressing the burning issues. As regards the delays in obtaining clearances, the Committee note that the NSP proposes a single window clearance for large

projects, to be followed by statutory clearances by the concerned ministries. The Committee however note that NSP does not clearly spell out a time frame within which clearances should be granted.

As regards the issue of grant/renewal of mining leases, the NSP states that the Government would lay down priorities and guidelines for the State Governments to recommend fresh mining leases, having regard to the entrepreneur's mining investment plans and technical and financial capabilities. It has been further stated that State Governments would recommend renewal of existing leases only against credible mining investment plans in a specified period. The Committee are of the view that this issue has not been properly addressed by the NSP, as no clear cut modalities have been spelt out. The Committee are not sure whether the mineral rich States would follow the guidelines of the Central Government in a federal democratic set up. The Committee feel that the NSP is not a well structured policy. The Committee understand that the NSP is under revision and hope that Government of India will definitely address to the above important issues and propose a single window mechanism for all the clearances and timely and adequate availability of the steel to steel majors in the country and discouraging export of quality iron ore needed by our domestic steel producers.

Recommendation No. 24

Infrastructure Requirement

The Committee note that lack of adequate port infrastructure is one of the constraints being faced by SAIL. The Committee also note that SAIL operates mainly at Haldia and Paradip ports. These ports are used for import of coking coal and export of steel. The Committee have been informed that the infrastructure available at these ports are inadequate to meet both the present and future requirements of SAIL. The major constraints at these ports are limited shore unloading facilities, inadequate railway rake availability etc., In this regard, the Committee note that SAIL has taken up the issues of development of necessary infrastructure with Haldia Port and Paradip Port authorities. The Committee feel that adequate port infrastructure is essential for SAIL in view of the expansion plan currently underway. The Committee, therefore, recommend that as a facilitator, the Ministry of Steel should vigorously pursue this issue with the Department of Shipping.

Recommendation No. 25

General

Steel Authority of India Limited was established on 24th January,1973 with the objective of planning, promoting and organizing an integrated and efficient development of the iron and steel industry, coordinating the activities of its subsidiaries, formulating and recommending to the Government a national policy for the development of iron and steel industry etc.,

The Committee are happy to note that SAIL has made a turn-around and made significant improvements in its performance over the last 35 years. SAIL has obtained 'Excellent' MOU ratings from the Government of India during the last 3 years. The Company also has the distinction of being India's largest producer of iron ore. It is also owning India's second largest mines network with a competitive edge in terms of captive availability of iron ore, limestone, dolomite, etc. SAIL has established a reputation for itself as a consistent and reliable supplier of world-class quality products in the international market as well. SAIL has also formed several joint ventures in different areas ranging from power plants to e-commerce.

While appreciating the above achievements of SAIL, the Committee find that in many aspects, such as reducing the coke rate, project implementation, raw material security, gainful utilization of fines, acquisition of coking coal equity abroad, development of iron ore mines, marketing, safety measures etc., its performance needs further improvement. The Committee observe that the steel industry at global level is witnessing phenomenal growth in demand and supply. Indian steel industry is also poised for a quantum jump in the next 15 years. The Committee feel that as the coming years would be crucial for the

growth of steel industry, SAIL has to prepare itself for technological and productivity improvements.

New Delhi:
24 April, 2008
Vaishakha, 1930(S)

RUPCHAND PAL,
Chairman,
Committee on Public Undertakings

MINUTES OF THE 13th SITTING OF THE COMMITTEE ON PUBLIC UNDERTAKINGS HELD ON 5th DECEMBER, 2007

The Committee sat from 1500 hours to 1630 hours.

PRESENT

Chairman

Shri Rupchand Pal

Members, Lok Sabha

2. Shri Ramdas Bandu Athawale
3. Smt. Sangeeta Kumari Singh Deo
4. Ch. Lal Singh
5. Dr. Rameshwar Oraon
6. Shri Kashiram Rana

Members, Rajya Sabha

7. Prof. Ram Deo Bhandary
8. Shri K. Chandran Pillai

Secretariat

1.	Shri S.K. Sharma	Additional Secretary
2.	Shri J.P. Sharma	Joint Secretary
3.	Shri N.C. Gupta	Deputy Secretary
4.	Shri Ajay Kumar	Deputy Secretary-II

Representatives of Steel Authority of India Limited

1.	Shri S.K. Roongta	Chairman
2.	Shri G. Ojha	Director (Personnel)
3.	Shri Soiles Bhattacharya	Director (Finance)
4.	Shri Shoeb Ahmed	Director (Commercial)

2. The Committee took oral evidence of the representatives of Steel Authority of India Limited (SAIL) in connection with its comprehensive examination.

3. At the outset, the Chairman welcomed the representatives of Steel Authority of India Limited and also drew their attention to direction 58 of the Directions by the Speaker relating to evidence before the Parliamentary Committees. Thereafter, the representatives of SAIL made an audio-visual presentation about the various aspects of the Company. After the audio-visual presentation, Members raised queries on

various aspects pertaining to the subject and the explanations/clarifications on the same were made by the representatives of SAIL. Information on some of the points raised by the Committee was not readily available with the representatives of SAIL. It was, however, promised by them that the same would be furnished to the Committee Secretariat in due course.

4. The Chairman then thanked the representatives of SAIL for providing all the material/information on the subject matter as desired by the Committee.

5. A copy of the verbatim proceedings has been kept on record separately.
6. The witnesses then withdrew.
7. The Committee then adjourned.

MINUTES OF THE 15th SITTING OF THE COMMITTEE ON PUBLIC UNDERTAKINGS HELD ON 8th February, 2007

The Committee sat from 1130 hrs to 1300 hrs.

Chairman

Shri Rupchand Pal

Members, Lok Sabha

2. Smt. Sangeeta Kumari Singh Deo
3. Shri Francis K. George
4. Dr. Vallabhbhai Kathiria
5. Shri Shriniwas Patil
6. Shri Kashiram Rana
7. Shri Mohan Rawale
8 Shri Ramjilal Suman

Members, Rajya Sabha

9 Shri Mahendra Mohan
10 Shri K. Chandran Pillai
11 Shri Dinesh Trivedi

SECRETARIAT

1.	Shri J.P.Sharma,	Joint Secretary
2.	Smt. Anita Jain	Director
3.	Shri N. C. Gupta,	Deputy Secretary
4.	Shri Ajay Kumar,	Deputy Secretary-II

REPRESENTATIVES OF MINISTRY OF STEEL

1.	Shri J.S.Sarma	Secretary
2.	Shri B.S.Meena	AS & FA
3.	Shri G.Elias	Joint Secretary
4.	Shri Udai Pratap Singh	Joint Secretary
5.	Shri S.K.Roongta	Chairman, SAIL
6.	Shri G.Ojha	Director(Pers.), SAIL

2. The Committee took oral evidence of the representatives of Ministry of Steel. in connection with comprehensive examination of Steel Authority of (India) Limited which has been selected as a subject for examination during the year 2007-2008.

3. At the outset, the Chairman welcomed the representatives of Ministry and also drew their attention to direction 58 of the Directions by the Speaker relating to evidence before the Parliamentary Committee. Thereafter, Members raised queries on various aspects pertaining to the subject and the explanations/clarifications on the same were made by the representatives of Ministry of Steel. Information on some of the points raised by the Committee was not readily available with the representatives

of Ministry of Steel. It was, however, promised by them that the same would be furnished to the Committee Secretariat in due course.

4. The Chairman then thanked the representatives of Ministry for providing all the information on the subject matter as desired by the Committee.

5. A copy of the verbatim proceedings has been kept on record separately.

6. The witnesses then withdrew.

7. The Committee then adjourned.

MINUTES OF THE 22nd SITTING OF THE COMMITTEE ON PUBLIC UNDERTAKINGS HELD ON 24th APRIL, 2008

The Committee sat from 1630 hours to 1730 hours.

PRESENT

Chairman, Shri Rupchand Pal

Members, Lok Sabha

2 Shri Ramdas Bandu Athawale
3 Smt. Sangeeta Kumari Singh Deo
4 Shri Francis K. George
5 Shri Kashiram Rana
6 Shri Ram Kripal Yadav

Members, Rajya Sabha

7 Shri Mahendra Mohan

Secretariat

1	Shri S.K. Sharma	Additional Secretary
2	Shri J.P. Sharma	Joint Secretary
3	Smt. Anita Jain	Director
4	Shri N. S. Hooda	Deputy Secretary
5	Shri Ajay Kumar	Deputy Secretary-II

Office of the Comptroller & Auditor General of India

Shri J.N. Gupta — Director General of Audit

2. The Committee took up for consideration the draft Report on Steel Authority of India Limited (SAIL) and adopted the same with some modifications.

3. XXXXXXXXXXX XXXXXXXXXXX XXXXXXX

4. The Committee authorized the Chairman to finalize the Report for presentation.

5. The Committee thereafter, took up for consideration the issue of discontinuing the practice of laying of Study Tour Reports of COPU in Parliament and passed the following Resolution:

> "The Committee on Public Undertakings (2007-08) do hereby resolve to discontinue the practice of laying of study tour reports in Parliament which was initiated during 13th Lok Sabha (2000-01) as per procedure adopted under Rule 281 of the Rules of Procedure and Conduct of Business in Lok Sabha.

However, the Committee, like other Parliamentary Committees will continue to prepare the tour notes and utilize the same in preparation of their main reports."

6. The Committee then adjourned.