CHAPTER II

PROFILE OF SALEM STEEL PLANT (SSP)
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2.1 AN INTRODUCTION TO SAIL

During 1972, there was thinking in the Government on the need for a suitable structure for the public sector steel industry for faster development. The Government sent a delegation abroad to study the organization of Governmental enterprises notably in the U.K., France and Italy. Mohan Kumaramangalam, who had joined the cabinet on 18th March 1971, as Minister for Steel and Mines, had given considerable thought to a new structure for the public sector steel industry. He gave out his views on a "New Model for Governmental Administration of Industry", in a lecture at Madras, on 9th December 1972. He contended that the culture of the civil services was not conducive to the needs of efficient industrial Management, because civil service was procedure oriented, whereas industry was result oriented. It might be recalled in this context that the absence of result orientation had resulted in a huge lose in Hindustan Steel Limited (HSL). Therefore, he suggested the concept of Holding Company for the Minister and that decision making should be on the pattern adopted in industry. Based on the Minister’s proposal for the establishment of a Holding Company for public sector and associated input industries, Government approval was given on 10th January 1972. The company was set up by Government with the following main objectives:
(i) To plan, promote and organize an integrated and efficient development of the iron and steel and associated industries, such as iron ore, coking coal, manganese, limestone, refractory etc., in accordance with the national economic policy and objectives laid down by Government from time to time.

(ii) To co-ordinate the activities of the subsidiaries, to determine their economic and financial objectives/target and to review, control, guide and direct their performance with a view securing optimal utilization of all resources placed of their disposal.

(iii) To act as an entrepreneur on behalf of the state, to identify new areas of economic investments and to undertake or help in undertaking of such investments and

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

The Steel Authority of India Limited (SAIL) was formally incorporated at New Delhi on 24th January 1973, with an authorized capital of Rs.2000 crores. The paid up capital as on 31st March 1974 was Rs.1326 crores.
SAIL one among 10 Central Public Sectors enjoying maximum fund allocation from the Government. The Government of India has invested an amount of Rs.12876 crores in SAIL, as on 1995 – 96, which tops the third among the Central Public Sector Enterprises in which the Government has invested.

SAIL has five integrated steel plants at.

1. Bhilai in Madhya Pradesh
2. Durgapur in West Bengal
3. Burnpur in West Bengal
4. Rourkela in Orissa
5. Bokaro in Bihar

In addition to this SAIL has three plants that are engaged in the production of special alloy steel, they are as,

1. Salem Steel Plant (SSP) in Tamil Nadu
2. Alloy Steel Plant (ASP) in West Bengal
3. A plant at Bhadravathi in Karnataka

Further the companies which are considered to be the subsidiaries of SAIL are,

1. Indian Iron and Steel Company (IISCO) in West Bengal
2. Visvesvaraya Iron and Steel Ltd (VISL) in Karnataka
3. Maharashtra Electromelt Limited (MEL) in Maharashtra
Apart from the above said major units SAIL has other units also. One among them is the Raw Materials Division (RMD) which controls seven iron ore, four limestone, one dolomite and three coal mines. SAIL mines produce about 24 million tones of iron ore, 2 million tones of limestone, 0.6 million tones of dolomite and one million tones of raw coal annually.

The division is gearing itself up to meet additional demand of raw materials as SAIL marches ahead to augment its capacity through its ongoing modernisation programme. SAIL will require around 28 million tones of iron ore, 6 million tones of limestone and 3 million tones of dolomite by the turn of the first decade of this century. This expected to be modernizing the existing mines as well as developing new mines in various parts of the country.

The central coal supply organization of RMD situated at Dhanbad in Bihar is entrusted with the gigantic task of arranging about 22,500 tonnes of indigenous metallurgical coal and 13,500 tonnes of power coal daily for the steel plants. The coking coal block in Jharia coal field has been allocated to SAIL. RMD is getting feasibility report prepared for opening up the mine to enhance its capability to supply indigenous metallurgical coal to steel plants and to reduce dependence on external sources.
All SAIL products are marketed in India through the Central Marketing Organization (CMO). To ensure quality and prompt dispatch of products, CMO keeps in touch with the producing units as well as with the transport and shipping sectors. It operates through an expanding network of stockyard, dockyard, branch sales offices, consignment agents and extension counters.

SAIL's International Trade Division looks after exports of mild steel products, maintaining close liaison with buyers abroad have helped SAIL to establish reputation as the makers of the finest steel products, in as many as 70 countries around the globe, notable among them are Australia, Japan, South Korea, China, Egypt, Iran, Iraq, UK and Russia.

Alloys, special and stainless steel products are marketed directly by the producing plants such as ASP, SSP, VISL and Maharashtra Electrosmelt Limited (MEL). These products have developed an niche for themselves and have won the Patina of Excellence in India and abroad. Products of IISCO are marketed through its own network of branch sales offices.

SAIL in its existence of nearly three decades, has acquired the unique distinction of erecting, operating and maintaining a chain of steel plants, using diverse technologies, equipment and product mix. The experience and expertise thus gained led to formation of a separate consultancy division which is named as SAIL Consultancy...
Division (SAILCON), to provide a wide range of services to the Iron and Steel Industry globally.

The services from SAILCON includes:

- Design and Engineering Services
- Project Management Services
- Human Resource and Development (HRD) and Management Services.

In addition to executing a wide range of assignments in India, SAILCON has satisfied clients in Egypt, Iran, the Philippines, Nepal, Taiwan and Thailand.

The Research and Development Center for Iron and Steel (RDCIS) at Ranchi & the Corporate Research and Development unit of SAIL which was set up in 1972, the center has ISO-9001 certification to its credit. It undertakes Research and Development projects in diverse realms of Iron and Steel technology under the categories of Basic Scientific Research, Plant Performance Improvement, Investigation and Consultancy Assignments, Equipment and Instrument Design and Major Technology Development.

A pioneer in selecting, developing, adopting, and implementing cost-effective Iron and Steel making technologies, RDCIS is equipped with more than 300 dedicated and competent scientists and engineers,
around 300 sophisticated diagnostic research equipment and 5 pilot plant facilities.

RDCIS aims at promoting originality, fostering creativity and expanding knowledge base through the pursuit of carefully selected Research and Development programmes. The center develops human resources and facilities to achieve sustained technological excellence, complimenting SAIL plant’s efforts for improved customer satisfaction. The major efforts are directed towards cost reduction, quality improvement and value-addition to new products. RDCIS aims at developing, prioritizing and updating the technology strategy of SAIL is to make the organization internationally competitive.

Recently, RDCIS has embarked upon marketing of technologies, expertise and equipment developed in house. The center is also involved in passing programmes disseminate technology awareness among various levels of executives in SAIL plants.

Thus, SAIL is uniquely placed in several ways. Its activities are diverse and pervasive, having within its fold different technologies and disciplines, with associated and ancillary units giving its cutting edge, to make it one of the world’s largest conglomerates in steel. It seeks to enlarge its global presence through increase in exports, collaborations, joint ventures and strategic alliances with acknowledged global steel players.
2.2 AN OVERVIEW OF SALEM STEEL PLANT

IMPORTANT DATES:

Go Ahead : 13-03-1977

COMMISSIONING:

Phase I : 13-09-1981
Phase II : 26-03-1991
Blanking Line : 24-12-1993
Hot Rolling Mill (HRM) : 11-09-1995
Capacity Installed (CRM) : 70,000 tonnes
Capacity Installed (HRM) : 1,86,200 tonnes

PROJECT COST:

Phase I : 181.19 Crores
Phase II : 76.27 Crores
HRM : 623.10 Crores (Revised)
Man Power : 1357
Area Acquired : 15.5 Sq.Km.
Township Dwellings : 832 units
Consulting Engineers : M/S MN Dastar & Co., Ltd.,
Civil Construction : M/S HSCL
### 2.3 ORIGIN OF SALEM STEEL PLANT

A Steel Plant in Salem was a long cherished dream. Government of India decided in May 15, 1972 to set up an integrated special steel plant at Salem in the state of Tamil Nadu for the production of steel and strips of electrical, stainless and other special and mild steel on the basis of sound techno-economic considerations.

The construction of the plant was inaugurated in June 13, 1972, by the late Shri. Mohan Kumaramangalam, the then Minister of Steel and Mines. Thus a dream of having a steel plant in Salem had started taking a shape in the foot hills of Kanjamalai. It was a Government of India undertaking and subsidiary of Steel Authority of India Limited.

#### INFRASTRUCTURE:

An 11.5 km four-lane road connects the plant with the Salem – Bangalore National Highway No:7 and an 8.6 km long road gauge railway siding links the plant to Salem railway junction. The total area acquired by Salem Steel Plant is 15.5 sq.km.

#### ORGANISATION STRUCTURE:

Organisation is where a hub of different activities are planned and executed to achieve a common corporate goal. In SSP its corporate goal is manufacturing various grades of stainless steel sheets and coils of having different finishes based on the customer’s requirements.
An organization structure clearly indicates the individual’s responsibility to achieve the organization’s goal. It is designed to clarify who is to do what and who is responsible for what results, to remove obstacles to performance caused by confusion and uncertainty of assignment, to furnish decision making and communication networks which reflects and supports enterprise objectives.

An organization is a powerful system. Purpose or mission is the reason for the creation, existence, continuance and functioning of any organization. The primary overall objective of an organization is reflected in its mission. Organisational objectives are the desired end influenced by the external environment, resources and human values of the particular organization. Organisational objectives are not mere good intentions or policy wishes. They are commitments to action and to attain specific performance levels over a defined period of time.

As a structure, organization is the network of vertical relationships among the members of group designed to accomplish that govern the activities of the people. The horizontal dimension reflects the hierarchy of authority relationships with a number of levels from top to bottom. It is the structure of objectives. An organization chart provides a bird’s eye view of the relationships between different departments or divisions of an enterprise as well as the relationships between people at various levels.
Executive Director (ED) is the Chief Executive of Salem Steel Plant. Next to ED, General Manager (Works) is the vice-captain of SSP.

In order to ensure smooth functioning of the enterprise, various departments as given below have been setup. Departmentalization is the efficient grouping of jobs into meaningful work units to achieve the organizational objectives.

- Computer and Informational Technology
- Finance and Accounts
- General Administration
- Human Resources Development
- Maintenance
- Marketing
- Materials Management
- Operation
- Personnel
- Production, Planning and Control
- Public Relations
- Town Administration
- Quality Control Department, etc.
2.4 IMPORTANT FEATURES OF SSP:

The most Important features of SSP are

1. The Cold Rolling Mill Complex (CRM)
2. The Hot Rolling Mill Complex (HRM)

2.5 PROCESS OF SSP:

The Salem Steel Plant has the latest technology in cold rolling, and the most modern equipment, supplied by the leading manufacturers of machinery from different parts of the world.

The raw material for the manufacturing process is hot rolled stainless steel coils, called hot bands. This is partly imported and partly taken from Alloy Steel Plant, Durgapur. These coils are built up on a coil build up line. The built up coils are softened and descaled in Annealing and Pickling lines. From here, the coils are sent for cold rolling in the Sendzimir mill to get the desired final thickness. The rolled coils are again softened and descaled to obtain the optimum finish and mechanical properties. The coils are then passed through the skin pass mill to give them a bright finish and necessary flatness. They are ultimately slit or sheared into finished products in the form the slit / divided coils or cut lengths. The special surface finishes are obtained in sheet form in the sheet finding, and in the coil form in the strip grinding lines.
2.6 MAJOR PRODUCTION EQUIPMENTS AT SSP:

- Coil Buildup line.
- Bell Annealing Furnaces.
- Annealing and Pickling lines.
- Sendzimir Cold Rolling Mill.
- Skin Pass Mill
- Shearing Line
- Sheet Grinding and Polishing Unit
- Stretcher, Leveller
- Requiring Shear.

The plant has a highly equipped laboratory, and effects stringent quality control measures aided by modern process control, inspection and testing facilities, which ensures supply of quality products conforming to international standards.

2.7 MARKETING DIVISION OF SSP:

The marketing division of SSP encompasses the entire gamut of activities related to the marketing cold rolled and hot rolled stainless and non-stainless products. The marketing division covers the sale of these products in the home marked as well as the export sales.

The selling activities are carried out through various regional offices and branches functioning under each region utilizing the
operational infrastructure of the Central Marketing Division (CMD) of SAIL such as stockyard, branch finance, communication network etc.,

**Market Segments:**

Products of Salem Steel Plant have become as house hold name in the domestic market and are being used mostly in industrial sectors which quality is the prime criteria. Besides supply of coils and sheets of hot rolled and cold rolled products, Salem Steel Plant undertakes turnkey, products like stainless steel tubes for the industries like sugar industry, chemical industry etc., and water pipe lines for its customers. Apart from it, it has the industrial development in India, is different sector like diary and food processing industries. Heavy machinery manufacturing pipes and tube making, architectural applications, building and constructing, railways, power and automobile sectors and so on.

As a part of marketing strategy, the plant has launched a conversion scheme a couple of years ago, under which various value added items like Dinner sets, Nastha sets, etc., are supplied. These products are made out of Salem Stainless at the works of reputed fabricators and manufacturers under the direct supervisions of the plant’s quality engineers.

The use of Salem Stainless for making exhaust frames for turbo generators by Bharat Heavy Electrical Limited (BHEL) crucibles for nuclear fuel complex at Maneguree thermal powers plants in
Ramagundam and Vijayawada shows its strict adherence to the quality aspect. SAIL's stainless is also used by the appliances and utensil manufactures.

Some of the major customers of Salem Steel Plant are the following:

- BHEL, Tiruchirapalli
- HMT, Tumkur.
- Indian Telephone Industries, Mankapur.
- Bhart Electronics Limited, Bangalore.

**The Marketing Network:**

In order to accelerate the domestic and overseas markets, Salem Steel Plant has a dedicated and professionalised marketing network. The products are marketed through the marketing department which is having a wide network of branch sales offices at Madras, Bombay, Delhi, Calcutta, Secundrabad, Ahmadabad and Bangalore.

**2.8 EXPORTS OF SSP:**

Salem stainless, well known for its top-notch quality is widely accepted in developed countries like U.S.A., Australia, Japan, United Kingdom, Spain, Portugal, Finland, Switzerland, Denmark etc., Around 41,500 tonnes of Salem Stainless have been exported till 1994-95 to as many as 27 countries including USA, European Countries, African
Countries, South East Asia, Middle East etc., In addition to the direct exports, Salem Stainless is preferred by 100% exports oriented units and free trade zones, which are deemed exports. Export of Salem stainless to the highly advanced countries clearly indicates its superior quality competitive price, timely delivery and excellent packing.

2.9 THE COMPUTERISATION:

The Electronic Data Processing Centre was setup in 1981 with the installation of a TDC 312 computer. The data processing activities have, thereafter undergone several changes incorporating the latest technology and today SSP has embarked on a new era of communication.

2.10 QUALITY CONTROL:

ISO 9002 Certification FOR COLD ROLLING MILL COMPLEX:

SSP was one of the very few companies and first in the SAIL family to get ISO 9002 certificate in April 1993 for three years for all its units of Cold Rolling Mill Complex and now it has got rectification of ISO 9002 in May 1996 for a further period of 3 years.

ISO 9002 CERTIFICATION FOR HOT ROLLING MILL COMPLEX:

SSP got yet another feather to its cap by acquiring the ISO 9002 certification for its HRM complex within a year (1995) of its commissioning.
SSP, A BENCHMARK FOR ISO 9002

M/S TUV India Pvt. Ltd., the member of the German RWTUV group, who have accorded ISO 9002 certification to SSP for its quality assurance system, has chosen the plant as a benchmark for its implementation and planning.

Further a joint venture of government of India, Karnataka and Andhra Pradesh, who are in the process of establishing a quality management system in their plant, wanted to see a demonstration of well implemented quality system, especially planning. As SSP is one of the best organizations having implemented the quality assurance system. The TUV India, the lead assessor, have chosen SSP for an interaction with the executives in the quality assurance and planning disciplines.

2.11. OTHER AWARDS WON BY SSP:

(i) SSP won the SAIL Corporate Award for excellent implementation of suggestion scheme for 1994-95 among special Steel Plants. 2549 suggestions were received in the plant during 1994-95, resulting in substantial cost savings.

(ii) Salem Steel has achieved ISO 14001 for its pollution free environment. This is the first plant in the family of SAIL to receive this award. This is issued by R.W.T.U.V a German Organisation, in the year 1999.
(iii) Stainless News, The prestigious publication of SIAL from Salem Steel Plant, has won the ‘House Journal for the year 1995’ Award from the Institute of Management Training, New Delhi at the 8th National Workshop on House Journals held on February 15 and 16, 1996.

2.12 HUMAN RESOURCE PROFILE:

Salem Steel Plant has 291 executives and 1066 non-executives employees.

Human Resource Management has been given due to importance, and as such the activities for the development of employees are carefully planned and implemented in order to enable itself to sustain as a progressive business organization and to have the capability to meet the challenges of the market economy.

The plant is trying for ISO 9000 accreditation to meet the quality standards set by the European community countries.

Salem Steel Plant has a well-organized Human Resource Development Center. The facilities available at the center include a workshop consisting of fitting, machineshop, electrical and steel metal section, an audio-visual section which has a 16 mm projector, overhead projector, automatic slide projector, slide-cum-ship projector, stereo record player, tape recorder and radio, a library having a good collection of books journals, and magazines on technical and management subjects,
and air-conditioned auditorium with a seating capacity of 251; an air conditioned conference hall; two classrooms; and a dining hall.

2.13 UNIONS FUNCTIONING IN SALEM STEEL PLANT

1. Salem Steel National Employees Union (Affiliated to INTUC). It is a recognised trade union.

2. Steel Plant Employees union. This is also a recognized trade union.


4. Irumbalai Anna Thozilalar Sangam.

5. Salem Steel Plant Pattali Thozilalar Sangam.

6. Salem Steel Scheduled Caste and Scheduled Tribe Employee’s union.

7. Salem Steel SC and ST employees integrity association.

8. Salem Steel SC and ST employees welfare association,


10. Salem Steel Ministerial Staff association.

11. Salem Steel Executive association.

2.14 WORK CULTURE:

A few of the notable features of the work environment of the plant are the following:

1) All employees right from the executive director to the janitor wear the same service dress whether they are in the operations end or
providing service to the customers both within and outside the organisation. This is done to inculcate team spirit among other things.

2) The employees of the plant attach great importance to the ethics of being at the work spot on time. This is ensured by punching in through a micro processor based time card system, and every endeavor is made by the employees to be at the work spot a head of the start of the shift time.

3) A balanced, and nutritious food is provided at subsidized rates to the employees under on single catering system which does not differentiate between designation and grades. Top level managers share the same table with those down the rank in the canteen. Tiffin and tea are provided at the workspot itself to avoid wastage of time.

4) All employees of the plant log the same hours of work per week, ensuring harmony of work, better team work, and availability of service to all divisions on mutual basis.

5) The gains accruing out of joint endeavors are shared among all employees in terms of incentive earnings. This system is vertically and horizontally convert, and reflects the tree spirit of teamwork.

6) The employees share a common vision of the future to be more customer oriented, and to try and satisfy the market place.