CHAPTER FIVE
CHAPTER FIVE
BRIEF DESCRIPTION OF ROURKELA STEEL PLANT

5.1. Birth and Growth of Rourkela Steel Plant:

Rourkela was the first Steel Plant to be taken up in the public sector. It is located amidst the green hilly track of Sundergarh district of Orissa, 400 kilometres west to Calcutta. On the main South Eastern Railway line to Bombay and around 320 kms from the capital of Orissa; i.e., Bhubaneswar. It is on the bank of the river Brahmani, which emerges a few kilometres ahead of Rourkela, on the confluence of its tributaries, Koel and Sankh. Negotiation for setting up of this plant were started in 1953 with Krupp and Demag of West Germany. On 21st December 1953, an agreement was entered into between the Government of India and a combined firm consisting Fried Krupp, Essen and Demag, Aktiengesellschaft Duisburg. The German combined firm was to provide technical and financial assistance in the construction of new steel plant at Rourkela with an initial capacity of 0.5 million tonnes. The combined firm was also appointed as Consultant for the project on a fixed fee of Rs. 2.148 Crore. The preliminary report of the project was submitted in May 1954 and a detailed report in January, 1955.

In the mean time, it was decided to increase the capacity of the project from 0.5 million tonnes to One million tonne. This resulted in a supplementary agreement with the consultants in July 1955. By this agreement the amount of fees payable to Consultants was raised to 2.853 Crore. In November 1955, the detailed project report for one million tonnes plant was finalised and in February 1956, the Government accepted it. In this context the committee on Public undertakings had pointed out the original estimates as well as subsequent revisions should be approved by the cabinet.

The programme of Industrial Development as envisaged in the Second Five Year Plan provided that the Rourkela Steel Plant would go in to production by the end of 1956.
Rourkela in Sundergarh district in North Western tip of Orissa and at the heart of a rich mineral belt was chosen after much deliberations. Thus began a new chapter of industrialisation for the country and the realisation of the dream of the great visionary Pandit Jawaharlal Nehru, the architect of Modern India. The story of Rourkela Steel Plant started as a step leading to the future development of the nation and was one of the early ventures to lay the infrastructure for India's Industrial Development.

As the largest industrial venture in the state of Orissa, Rourkela Steel Plant signified the revival of past glory for a people known for commercial skill in the medieval era, (12th Century, Konark temple, the architectural marvel of the ancient age, found its modern expression in the integrated Steel Plant, which in the words of Pandit Nehru, is among the temples of Modern India)  

Rourkela Steel Plant was initially known as Hindustan Steel Limited having been formed in 1954 with an authorised capital Rs. 100 Crore.

The project of one million tonne stage was – sanctioned by the Government of India at an estimated cost of Rs. 1700 million. This excluded the mines, townships and other ancillaries. The foreign exchange requirement for the project was made from the west Germany credit of DM 660 million as per the agreement between the Government of India and the Government of the Federal Republic of Germany.

The major decision on the steel making process to be adopted was taken at the revised project report for useful information and evidence collected by the combine, the newly developed method of steel making L.D. Process to a great extent replaced the conventional open hearth process envisaged earlier. Seventy five percent of the ingot steel production was designed to flow through the L.D. Converters. Thus the Rourkela Steel Plant joined the world and was the third to adopt this sophisticated technology.

The units at the one million tonne stage were commissioned between December, 1958 and early part of 1962. Coke ovens were the first to be pushed on 2nd December, 1958. The first hot metal was tapped subsequently as Blast Furnace. It was
inaugurated on 3rd February 1959, by Dr. Rajendra Prasad, the President of India. The first L.D. Vessel was commissioned on 27th December, 1959. The Hot Strip Mill was inaugurated by Pandit Jawaharlal Nehru on 21st April, 1961. This plant was setup with a capital investment of Rs. 783 Crore for the steel plant and Rs. 47 Crore for the Fertilizer unit. The plant has a work force of about 39000 people. With the finalisation of the Third Five Year Plan, a decision was taken to increase the capacity of the steel plant, taking advantage of the inbuilt capacity of the blooming and slabling mill, the wide hot strip mill and plate mill and to meet the additional demand of the flat products for the country. It was planned to expand the capacity of the plant from 1 million tonne to 1.8 million tonne ingots per annum. In this context, the committee on public undertakings had pointed out that the original estimates as well as subsequent revisions should be approved by the cabinet. The Central Engineering and Design Bureau (CEDB) was now known as MECON submitted a project report in April, 1961, and the Government approved the same by the end of the year. Besides expansion of the capacity of the existing unit, the scheme also envisaged addition of new units like Electrical Sheet, Mill for producing dynamo and transformer grade steel, galvanising lines for plain and corrugated galvanised sheets, electrolytic tinning lines etc. The estimated capital outlay for the expansion scheme was indicated at Rs. 1050 million including the foreign exchange component. The Government of India entered into a loan agreement with M/S. Kreditanstaltfur Wederaufbau (KfW), West Germany for a credit of DM 306 million. The commissioning of the expansion units commenced in 1965 and was completed by the end of 1968.

An indigenous scheme, developed by the German planners envisaged the possibility of fixing large quantities of Nitrogen, available from liquefaction of air to Ammonia which could be used as fertilizer in aid of agricultural sector.

M/S. BOCHAKO were appointed as consultant for examining the possibilities of manufacturing fertilizer at Rourkela by utilizing the available Nitrogen and the coke oven gas. The consultant recommended manufacture of Calcium Ammonium Nitrate (CAN) within the Rourkela Steel Plant Complex, by utilizing the free hydrogen of Coke Oven gas, the Nitrogen from the Tonnage Oxygen Plant and the undersized lime stones from the captive mines from Purnapani. The capacity of the CAN production
was ultimately worked out to 460,000 tonnes per annum along with the nutrient Nitrogen capacity of 115,000 tonnes.

5.2 Present Products produced by Rourkela Steel Plant:

Rourkela Steel Plant has a vast product line up which includes wide and heavy plates, hot rolled sheets, light plates and strips, electrolytic tin plates, galvanised sheets, electrical steel sheets, spiral weld pipes, silicon steel sheets and coils etc. These products are extensively used in the manufacture of railway wagons, ships, boilers, pipe bodies of passenger cars, knives etc. Steel is made here by Linzwer Dusenverfahren Oxygen is blown through (L.D.) process. In this process pure oxygen is blown under pressure over the hot metal contained in an L.D. Converter. Steel produced by this process is of superior quality. An Oxygen plant is set up for separating pure oxygen from atmospheric air. Nitrogen, a by-product of this plant is fed to fertilizer plant located here. The plates used extensively are made here by converting their steel sheets by a coating of tin. Both hot dipped in plates and electrolytic tin plates are manufactured.

5.3 Raw Materials, Power and Market:

Rourkela Steel Plant is located at the plant of “Minimum transfer costs” in relation to the sources of raw materials, power and market. It is ore based plant. It has got its own iron ore mines and lime stone and dolomite quarries. The Barsua Iron ore mines and Purnapani lime stone and dolomite quarries belong to Rourkela Steel Plant. Barsua is located only 77 kms to the south of Rourkela and Purnapani is situated 30 kms away from the Rourkela Steel Plant. Limestone is procured from Langi Berna and Birmitrapur which are located within a radius of 225 kms. Dolomite supplies are available from Biramitrapur.

To produce 1.8 million tonnes of Steel, Rourkela, needs every year 1380 million tonnes of coking coal, 1030 million tonnes of steam coals, 1008 million tonnes of iron ore fines, 1157 million tonnes lime stone of different grades, 0.332 million tonnes of Dolomite and 0.136 million tonnes of Manganese ore besides a host of other minor yet important raw materials. The fully mechanised and captive mines with beneficication
facilities at Barsua, along with the high grade ore mines at Kalta, meet the bulk of the iron ore requirements. The mechanized mine at Purnapani supplies high grade lime stone, Dolomite is obtained from the quarry at Biramitrapur. All the mines are located in the nearby region. Coking coal is obtained from the Bihar-Bengal fields and the washeries at Bhojudih, Kargali, Swang and Giddi. The captive power plant of Rourkela Steel Plant is especially designed to use low grade Boiler Coal. The entire steam coal requirement is met from Mahanadi Coal fields fully equipped with wagon tipplers, automatic handling facilities, coal blending provision, coal crushing and coke screening arrangements. The 4.5 metre tall coke ovens produce metallurgical coke to feed the blast furnace. The five blast furnaces provide hot metal required for steel production. Quality control system is inbuilt. Among the first few steel plants in the world to adopt L.D. process of steel making on a commercial scale, Rourkela also has the conventional open hearth furnace. By adopting strict process control, the steel melting shop produces a wide range of special steels.

Water:

The Sankha and Koel rivers supply about 590 million litres of water a day for the steel plant. Further, supplies come from the Mandira Detention Reservoir, constructed on the Sankha river to supplement additional water requirements.

Power:

Rourkela Steel Plant gets power from the Hirakud Hydel Power Station which is 140.9 kms away from the steel plant. Another power house has been constructed at a place known as Chiplima 2.25 kms down stream from the Hirakud Dam. The total installed capacity of the two power houses is 270 MW, its own captive power plant 2 X 60 MW is also providing power to the steel plant.

Township:

The steel and fertilizer townships provide around 23,254 residential accommodations having a total population of nearly 2.8 lakhs. Elegantly designed, the steel township is divided into 21 sectors, all connected to a ring road serving as life line.
Computerisation:

The latest generation of computers are used for management information, management control and process control applications. Through internal efforts, a number of software packages have been developed to help decision making in areas of finance, materials, personnel, production maintenance and services, spares and stores. Inventory is monitored through computer generated statements and this helps in scientific inventory control. The continuous process of quality control begins right at the mines, followed meticulously at every step of processing and ends up with inspection of the product. The in-house Research and Development work contributes for steady improvement in technological performance.

5.4 Organisation Structure:

The Organisation Chart (provided in the Annexure) indicates Organisation Structure. The personnel system, broadly speaking, has five categories of management namely, top level (board of directors, chairman and managing director), senior level (General Manager – Materials Management, General Manager – Personnel, General Manager – Finance and Accounts, General Manager – Works, General Manager – Sales, General Manager – Mines and Quarries) and middle level managers (in the above mentioned departments) and lower level supervisors (in the above mentioned departments). The top level management is entrusted with the work of making policies for the smooth running of the plant. Having been selected to serve on the board, all directors must identify themselves with the interest of the undertakings. The appointment of officials on the board tends to secure for Government companies the same control and community of interest which private companies attain through the appointment of members of the family on the boards of management. The board of directors must have special interest for the improvement of the concern. Public enterprises need energetic and sharp witted persons to man them and not tired and retired people.

The internal management must be properly managed by the board. Therefore, the Gorwala committee had observed that the internal management must be under the control of the board and not of the Government. There must be proper accountability
on the board. Then only can the company run smoothly and efficiently. Accountability must be exercised through the establishment of suitable standard of work performance.10

The senior level management is responsible for the overall working of the plant based on functions; i.e., procurement of materials, recruitment of personnel and administration, works, projects and modernisation, finance and account sales, mining activities etc. The middle level management looks after the day to day running of the plant.

The lower level management supervises the activities of clerical staff, workers both skilled, unskilled and semi-skilled.

5.5 Recruitment, Placement, Promotion and Industrial Relations of Rourkela Steel Plant:

Man power: The man power position of Rourkela Steel Plant for the last seven years is shown in Table 5.1.

<table>
<thead>
<tr>
<th>Year</th>
<th>Executives</th>
<th>Non-executives</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996-97</td>
<td>3066</td>
<td>30306</td>
<td>33372</td>
</tr>
<tr>
<td>1997-98</td>
<td>2847</td>
<td>28830</td>
<td>31677</td>
</tr>
<tr>
<td>1998-99</td>
<td>2706</td>
<td>28225</td>
<td>30931</td>
</tr>
<tr>
<td>1999-2000</td>
<td>2504</td>
<td>25797</td>
<td>28301</td>
</tr>
<tr>
<td>2000-2001</td>
<td>2422</td>
<td>25229</td>
<td>27561</td>
</tr>
<tr>
<td>2001-2002</td>
<td>2284</td>
<td>23768</td>
<td>26052</td>
</tr>
<tr>
<td>2002-2003</td>
<td>2322</td>
<td>22352</td>
<td>24674</td>
</tr>
</tbody>
</table>

Source : Annual Report, Rourkela Steel Plant, 2002-03

Initially when the company started its operation it had a workforce of 39000 people. But gradually it had shown a declining trend. In 1996-97 it had a workforce of 33372 employees consisting of 3066 executives and 30306 non-executives. In 1997-98, again it came down to 31677 employees consisting of 2847 executives and 28830 non-
executives. In 1998-99, again it decreased to 30931 employees, consisting of 2706 executives and 28225 non-executives. In 1999-2000, also it showed 28301 employees consisting of 2504 executives and 25797 non-executives. In 2000-2001 it again came down to 27651 employees including 2422 executives and 25229 non-executives. Similarly, in 2001-2002 also, it showed downward trend, the number decreased to 26052 employees including 2284 executives and 23768 non-executives. Again in 2002-2003, the manpower strength came down to 24674 including 2322 executives and 22352 non-executives. In this way, 14326 employees were reduced since inception of the company, through retirement and voluntary retirement schemes. As the companies profitability trend showed a declining trend since 1995-96, this company had introduced various VRS schemes to reduce the employees.

A full fledged personnel department is functioning under the charge of Deputy General Manager (Personnel). He is directly responsible to the General Manager. All matters pertaining to recruitment, maintenance of service records, promotions, disciplinary measures, industrial relations are dealt with by the personnel department.

Prior to the commencement of production, there were no set rules for recruitment as most of the work was entrusted to contractors. From 1960 onwards, position improved when the personnel department adopted certain set rules for recruitment. A rational policy has also been devised for departmental employees from November, 1964 as a result of an agreement between the management and the recognized union. According to these rules, the unskilled workers were recruited through the employment exchange when suitable candidates were not available, as a last resort, the vacancies were advertised in all India newspapers. The guiding principle for giving promotion was seniority-cum-suitability. All promotions were decided on the basis of recommendations of the Departmental Promotion Committee.\textsuperscript{11}

A well equipped Technical Institute with the attached shops for practical training had been provided by the management inside the plant premises under the regular scheme, training courses were provided for graduate engineers, senior operators, junior operators and artisan trainees besides trade apprentices. To enable the existing employees to improve their technical knowledge and quality for further promotions, the
provision had been made for various refresher courses to new workers, skilled workers, semi-skilled workers and employees.\textsuperscript{12}

In Rourkela, with the existence of five trade union (Rourkela Workers Union, North Orissa Workers Union, Rourkela Mazdoor Sabha, Rourkela Steel Mazdoor Union and Hindustan Steel Workers Association) in consultation with the management are settling the dispute arising from time to time.\textsuperscript{13}

\section*{5.6 Production Highlights :}

The production of ingot steel and saleable steel in Rourkela Steel Plant is given below:

\begin{table}[h]
\centering
\caption{Production Trend of Rourkela Steel Plant}
\label{table:5.2}
\begin{tabular}{|c|c|c|}
\hline
Year & Ingot Steel & Saleable Steel \\
\hline
1959-60 & 0.066 & 0.301 \\
1965-66 & 1.065 & 0.780 \\
1971-72 & 0.823 & 0.597 \\
1977-78 & 1.409 & 1.178 \\
1983-84 & 1.088 & 0.862 \\
1989-90 & 1.170 & 1.111 \\
1995-96 & 1.178 & 1.200 \\
2001-2002 & 1.334 & 1.354 \\
\hline
\end{tabular}
\end{table}

(Source : Annual Report 2001-02, Steel Authority of India Limited, New Delhi)

In ingot steel production, the capacity of 1 million stage has been achieved in 1965-66. However, after expansion, the ingot steel production increased to 1.409 million tonnes and saleable steel production increased to 1.178 million tonnes after modernisation of the plant in 1977-78. Again, ingot steel and saleable steel production reduced in 1983-84, 1989-90 and 1995-96 due to non-availability of coking coal and power. Again, in 2001-02, the ingot steel and saleable steel production increased to 1.334 million tonnes and 1.354 million tonnes respectively.

\section*{5.7 Profitability Position :}

The profitability position of Rourkela Steel Plant since inception is given below in Table 5.2 :
Table 5.3
Profit and loss statement of Rourkela Steel Plant since its inception (Rs. in Crore)

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Profit (+)/Net Loss (-)</th>
<th>Year</th>
<th>Net Profit (+)/Net Loss (-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1958-59</td>
<td>(-) 0.11</td>
<td>1981-82</td>
<td>(-) 21.71</td>
</tr>
<tr>
<td>1959-60</td>
<td>(-) 0.89</td>
<td>1982-83</td>
<td>(-) 74.99</td>
</tr>
<tr>
<td>1960-61</td>
<td>(-) 1.28</td>
<td>1983-84</td>
<td>(-) 100.32</td>
</tr>
<tr>
<td>1961-62</td>
<td>(-) 18.54</td>
<td>1984-85</td>
<td>27.10</td>
</tr>
<tr>
<td>1962-63</td>
<td>(-) 9.94</td>
<td>1985-86</td>
<td>33.62</td>
</tr>
<tr>
<td>1963-64</td>
<td>(-) 8.18</td>
<td>1986-87</td>
<td>11.14</td>
</tr>
<tr>
<td>1964-65</td>
<td>(-) 4.38</td>
<td>1987-88</td>
<td>15.02</td>
</tr>
<tr>
<td>1965-66</td>
<td>10.07</td>
<td>1988-89</td>
<td>98.93</td>
</tr>
<tr>
<td>1966-67</td>
<td>(-) 3.98</td>
<td>1989-90</td>
<td>55.05</td>
</tr>
<tr>
<td>1967-68</td>
<td>(-) 8.30</td>
<td>1990-91</td>
<td>42.70</td>
</tr>
<tr>
<td>1969-70</td>
<td>6.15</td>
<td>1992-93</td>
<td>44.29</td>
</tr>
<tr>
<td>1970-71</td>
<td>7.59</td>
<td>1993-94</td>
<td>3.41</td>
</tr>
<tr>
<td>1971-72</td>
<td>(-) 8.60</td>
<td>1994-95</td>
<td>18.97</td>
</tr>
<tr>
<td>1972-73</td>
<td>(-) 0.95</td>
<td>1995-96</td>
<td>(-) 56.64</td>
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<tr>
<td>1973-74</td>
<td>8.54</td>
<td>1996-97</td>
<td>(-) 316.39</td>
</tr>
<tr>
<td>1974-75</td>
<td>20.85</td>
<td>1997-98</td>
<td>(-) 374.14</td>
</tr>
<tr>
<td>1975-76</td>
<td>30.74</td>
<td>1998-99</td>
<td>(-) 765.05</td>
</tr>
<tr>
<td>1977-78</td>
<td>21.70</td>
<td>2000-2001</td>
<td>(-) 444.61</td>
</tr>
<tr>
<td>1978-79</td>
<td>46.75</td>
<td>2001-2002</td>
<td>(-) 1035.86</td>
</tr>
<tr>
<td>1979-80</td>
<td>47.65</td>
<td>2002-2003</td>
<td>(-) 593.16</td>
</tr>
<tr>
<td>1980-81</td>
<td>13.97</td>
<td></td>
<td>Cumulative loss (-) 3949.38</td>
</tr>
</tbody>
</table>

(Source: Plant Accounts, Steel Authority of India Limited, New Delhi, 2003)

The above mentioned Table No. 5.2 depicts that The Rourkela Steel Plant (RSP) was sustaining net losses from the year 1958-59 (year of inception) to 1968-69 except in the year 1965-66 (Net profit Rs. 10.07 Crore) for 10 years due to heavy capital investments in the earlier years. It earned net profits of Rs. 6.15 Crore and 7.59 Crore during 1969-70 and 1970-71 respectively, Again, it incurred net losses in 1971-72 and 1972-73. From the year 1973-74 to 1980-81, it earned net profits for 8 years. Again, from the year 1981-82 to 1983-84, it incurred net losses. From the year 1984-85 to 1994-95, it earned net profits consecutively. Again, from the year 1995-96 to 2002-2003, this plant continuously sustained net losses. The highest net profits, it earned in 1988-89; i.e. Rs. 98.03 Crore. Out of total 45 years, this plant earned net profits for 21 years only. It is not a healthy sign for the plant. The cumulative net loss as on 31.03.2003 was Rs. 3949.38 Crore. This plant incurred highest amount of loss of Rs.
1035.86 Crore during the year 2001-2002. The interest and depreciation burden on account of plants modernisation increased to Rs. 770 Crore in 1998-99 which was responsible for such heavy losses from 1998-99.

5.8 Reasons for poor performance:

The reasons for the poor performance of Rourkela Steel Plant have been; sharp increase in the prices of Input not compensated by corresponding increase in the selling price of steel, inadequate availability of power leading to substantial production losses and adverse market position for flat and tubular steel products. The increase in the prices of major inputs has not been fully compensated by the increase in the net sales realisation of saleable steel resulted in net losses for 24 years out of 45 years. From 1966-67 to 1968-68, Rourkela Steel Plant sustained net losses due to chronic inadequacy in power supply in quantum and quality seriously affected production beginning from 1979-80. It was decided as a policy that captive power plants should be set up in the steel units, for which action was initiated in 1980-81. In Rourkela Steel Plant, 2 X 60 MW power plant was sanctioned with a cost of Rs. 177.89 Crore and taken up by 1982-83 and completed by the end of 1987. Till then Rourkela Steel Plant faced a serious power constraints which ultimately hampered the production and sustained net losses from 1981-82 to 1984-85. Due to several operational problems and breakdown of machines also only 51.6% of capacity utilised in 1984-85 in Rourkela Steel Plant. Technologically, Rourkela Steel Plant lagged behind its competition, even as older companies like TISCO went in for 100 percent continuous casting for producing finished steel where as Rourkela Steel Plant is hardly able to convert 50 percent of its operation in this mode, the rest still being produced through ingot route. A huge budgeted modernisation programme of SAIL for Rourkela Steel Plant (Rs. 4186 Crore) that added to the interest cost, depreciation and huge manpower to handle is also responsible for heavy losses. In the present situation, the stiff competition from the foreign companies, the Indian Steel Plant especially the Rourkela Steel Plant could not complete due to the increased cost of production and charging of high prices in the international market. The profitability position of Rourkela Steel Plant is not sound. It sustained cumulative net loss of Rs. 3949.38 Crore as on 31.03.2003.
5.9 Summary:

Rourkela Steel Plant, the first public sector steel plant in India was set up in collaboration with West Germany and started production in 1958-59 with a rated company of 1 million ingot steel. This plant was designed and constructed by West German Steel Industry and Equipment suppliers. The plant adopted the new L.D. (Linzwer Dusenverfahren) steel making processes. Subsequent expansion to 1.8 million tonnes with design and consulting from the Central Engineering and Design Beraus was completed in 1967-68. A fertilizers plant had also been added to the steel plant by utilising the available Nitrogen and the coke over gas. Rourkela Steel plant has a vast product line up which includes plates, electrical sheets, silicon steel sheets, and coils, hot rolled coils, spiral weld pipes, electrolytic tin plates galvanised sheets. This plant gets from its own mines, iron ore from Barsua Iron Ore Mines and limestone and dolomite from Purnapani Limestone and dolomite quarries. It also gets limestone and dolomite from Langi Bema and Biramitrapur. It gets coking coal from Bihar-Bengal fields. It gets water from Sankha and Koel river, It gets power from Hirakud Hydal Power station and its own captive power plants. This plant provides accommodation facilities to a total population of 2.8 lakhs. The latest generation of computers are used for management control and process control applications. This plant has five categories of management, top level, consisting of board of directors, chairman and managing directors, senior level or general manager rank in the department of materials management, personnel, finance and accounts, works, sales, mines and quarries, as well as middle level managers and lower level supervisors in the above mentioned departments. The total manpower strength showed a downward trends since inceptions. Initially 1959-60, there was 39000 employees but gradually it came down to 33372 employees in 1996-97 and then 24674 employees in 2002-03. In ingot steel production, the capacity of 1 million tonne stage achieved. In 1965-66. Again ingot steel productions increased to 1.409 million tonnes and saleable steel increased to 1.178 million in 1977-78. It showed downward trend in 1983-84, 1989-90 and 1995-96 due to non-availability of coking coal and power. Again, in 2001-02, the ingot steel production increased to 1.334 million tonnes and saleable steel production increased to 1.354 million tonnes. Rourkela Steel Plant's profitability position is not at all sound. It sustained net losses for 23 years out of 45 years since
inception. Its net cumulative loss as on 31st March, 2003 was Rs 3949.38 Crore. The reasons for poor performance of Rourkela Steel Plant have been a sharp increase in the prices of inputs not compensated by corresponding increase in the selling prices of steel, non-availability of power and adverse market position for flat and tubular products. A huge budgeted modernisation project of Rs. 12,000 Crore of SAIL had added interest cost, depreciation and a huge manpower to handle is also responsible for heavy losses. Whatever may be the profitability position of Rourkela Steel plant today, it does not stand for massive integrated steel providing unit only. It also represents a growth centre, a way of life and development of a people share the glory of today's prosperity while supporting the nation in its march towards the 21st century and to an era of industrial excellence. The modernisation programme of Rourkela Steel plant aimed at to upgrade the technological status of the plant to a level prevailing in developing countries. The objective is to make up the operational deficiency by replacing the obsolete technology of plant, equipment, process and by adding essential machine facilities, effort on energy saving and ensure better environment control.

References:
5. Ibid, P-2.


12. *Ibid., P-121*.

13. *Ibid., P-121*.