

Chapter II: Planning

The Corporate Plan (CP) -2012 prepared by SAIL in 2004-05, envisaged the capacity build-up of each plant in phases, initially by realization of existing potential through de-bottlenecking (2006-07) and finally capacity addition through major investments by 2011-12. The capacity expansion of entire production stream from raw material handling system to rolling mills was to increase crude steel production from 12.84 million ton per annum (mtpa) in 2005-06 to 21.40 mtpa by 2012.

Audit noted that expansion plan was backed by sufficient demand for steel products in India. Audit also noted that SAIL had necessary funds to finance the capacity expansion programme. SAIL, however, did not assess the capacity of equipment suppliers, civil contractors, project consultants and in-house project management capacity to efficiently execute the MEP, as a result of which the MEP suffered as discussed in the report.

2.1 Availability of equipment supplier and civil/structural contractors

The Company was aware that world-wide, there were very few technology suppliers for steel-making equipments. They also knew that capacity enhancements were taking place in private sector in India as well as in other countries. As per the estimates of World Steel Dynamics, world crude steel production of one billion tonne per annum in 2004 was expected to cross 1.130 billion tonne per annum by 2010. China had planned to add 80 million tonne of crude steel by 2010. Besides SAIL, other Indian Steel producers had also planned to enhance their domestic capacity of crude steel to 120.87 mt in 2012 from 56.84 mt in 2006-07. Therefore, there was a very high risk of being caught in hiking of prices by equipment suppliers due to limited spare capacity. Also, delays in execution were anticipated as a consequence of limited capacity of vendors/contractors. The Company in consultation with Ministry of Steel, however, chose (2006) to take up the entire plan of capacity expansion of hot metal production to 23.46 mtpa from 13.83 mtpa in 2005-06 simultaneously in all the plants. The project implementation duration was also compressed by two years at the instance of the Ministry of Steel with scheduled completion in 2010, as against 2012 envisaged in CP-2012. Equipment suppliers for steel-making were already overbooked at this time and simultaneous capacity building in all the plants within the compressed time period had adverse consequences as commented below.

2.1.1 Overbooked equipment suppliers sought higher prices for their equipment

Prices quoted by the bidders for the various MEP projects tendered during 2006-08 were higher by 70 - 100 *per cent* than their cost estimates and the total cost of proposed MEP projects increased to ₹ 77,691 crore, an overall 80 *per cent* jump over cost estimates of ₹ 43,142 crore. At this time, the Company could have decided to stagger the capacity building plan in phases to allow the prices of equipment and services to calm down. The SAIL Board however had decided to implement the MEP projects simultaneously to take

advantage of buoyancy in Indian and global steel market by early implementing all the projects of MEP vis-a-vis other steel producers which were planning to set up green-field steel plants.

Audit noted that TATA Steel² had also planned to double its production capacity from 5 mtpa to 9.7 mtpa in two phases, initially from 5 mtpa to 6.8 mtpa by 2008 and then to 9.7 mtpa by 2012, and the projects were commissioned as planned.

Due to insufficient competition, 20 contracts valuing ₹ 10,556 crore were awarded on single qualified bid basis, which was higher by ₹ 2,125 crore (25 per cent) over cost estimates which were updated for all scope creep and price escalation up to opening of price bids. Similarly, 20 contracts valuing ₹ 6,600 crore which was higher than the cost estimates by ₹ 578 crore (9.6 per cent) were awarded on two qualified bid basis. In the absence of sufficient competition, the reasonableness of the ordered price could not be verified in audit.

Ministry stated that the buoyant Indian and global steel market inspired all foreign and indigenous steel players including SAIL to go for capacity expansion, with a view to reap benefits from booming market. Meetings and presentations were organised with technology and equipment suppliers and open global tender were solicited to encourage their greater participation in the MEP implementation. Limited vendor/contractor capacity due to substantial ongoing expansion plan globally, however, reduced the competition significantly. There was no choice but to proceed with single bidder.

Reply is not tenable. The Board decided to take advantage of prevailing buoyancy in Indian and global steel market, and for that not only had they compressed the implementation period by two years, but also chose to pay higher prices for equipment and other works. The Company should have put in mechanisms to ensure that all the tasks starting from tender finalization/award of contract to execution/commissioning of projects were completed as per planned schedule. We, however, noted that there were several deficiencies as detailed below which resulted in delays as a result of which SAIL could not complete the MEP by October 2010.

- A new post of Director (Project and Business Planning) was created in May 2012 to coordinate and oversee planning and execution of projects. Audit noted that by this time, most MEP projects were already under execution;
- The Company came out with new guidelines on formulation and appraisal of projects only in 2010 after noting inadequacy in the 1986/2000 guidelines. By this time most of the MEP projects were already appraised and tendered and/or ordered;
- Detailed project reports (DPRs) were not prepared and pre-bid conferences were not organized in most of the cases. The Company went to tendering of MEP projects without finalising full scope of work and complete technical specifications; and

² Sources: Annual Reports of TATA Steel which are in public domain

- Sites were not in 'ready to handover' condition at the time of execution of main technological contracts and there was delay of 11 months - 53 months in handing over site to the contractors.

2.1.2 Deferment of projects

While planning for MEP in July 2008, the Company did not factor in fund requirement for capacity enhancement of mines. The Company, however, earmarked (May/June 2009) ₹ 10,264 crore for augmentation and development of mines to meet the additional requirement of raw material after expansion. To meet the additional capital expenditure, the Company had to further scale down (June 2009) the scope of MEP to ₹ 64,886 crore, due to limited financial flexibility within the envisaged debt equity ratio of 1:1. MEP projects valuing ₹ 18,375 crore planned for BSP, BSL, DSP and RSP were excluded/deferred and ₹ 77.92 crore incurred up to June 2009 on these projects became infructuous.

Selection of MEP projects to be deferred was purely adhoc. The Company deferred only such projects which were not ordered at the time of review in June 2009. As a result, important projects got deferred in the BSP, BSL, DSP and RSP, and the Company had to forego annual gross margin of ₹ 8,127 crore on deferred investment of ₹ 18,375 crore. Total gross margin on the MEP investments was also reduced from 26.5 to 18 *per cent* as seen from the Table 2 below.

Table 2: Changes in estimated gross margin due to deferment of projects BSP, BSL, DSP and RSP

(Rounded to ₹ in crore)

Name of the unit	Approved MEP investment-July 2008	Approved investment after deferment - June 2009	MEP Investment after deferred	Gross Margin* before deferment-July 2008	Gross Margin after deferment - June 2009	Reduction of gross margin
BSP	21,139	17,265	3,874	4,642	3,030	1,612
BSL	15,196	6,325	8,871	3,584	528	3,056
DSP	8,004	2,875	5,129	2,479	833	1,646
RSP	12,313	11,812	501	4,311	2,498	1,813
Total	56,652	38,277	18,375	15,016	6,889	8,127
Estimated gross Margin as percentage of approved investments				26.5	18.0	

*Net sales realisation minus manufacturing cost

Ministry stated that the decision to defer some of the packages/schemes under MEP was taken with due approval of SAIL Board in June 2009 keeping in view global economic and steel scenario. Ministry reply is not tenable because in 2008 they chose to order all the MEP projects simultaneously which was unsustainable as commented above. For expanded steel-making capacity, they were also required to enhance availability of raw material from captive mines. Therefore, they should have simultaneously factored the need of additional fund of ₹ 10,264 crore for captive mines when they planned funding for the expansion of steel-making capacity in 2007-08 and should not have waited for this until June 2009. Moreover, the

mining projects for which the Company deferred the steel making projects worth ₹ 18,375 crore could not take off. Against total ₹ 10,264 crore earmarked in June 2009 for captive mines projects, only nine mining projects valued at ₹ 32 crore were completed by March 2014 and ₹ 925 crore was spent up to December 2014.

2.1.3 Capacity Mismatch

Deferment of some of the MEP projects created a situation where supply chain of integrated steel making in some cases was broken resulting in capacity mismatch among the projects in upstream and downstream. Some of such cases are commented below.

1. As per approved Plan (December 2006), capacity expansion in BSL was to increase to 7.0 mtpa from 4.36 mtpa of crude steel, and the same was to be achieved by installing an additional SMS-III Complex to produce 3.8 mtpa of crude steel. A new cold rolling mill (CRM)-III was planned to use crude steel from new SMS-III for producing 1.2 mtpa of saleable steel. In addition, up-gradation of SMS-II and Hot Strip Mill was also envisaged to match the capacity in upstream and downstream. Most of the main technological packages of new CRM-III of ₹ 2,524.04 crore were ordered during March-May 2008 whereas SMS-III plant was deferred. This would result in the CRM-III capacity being unutilized.

Ministry stated that input requirement of new CRM-III of BSL will be met from SMS-I, II and Hot Strip Mill (HSM) after completion of their ongoing modernisation and up-gradation. Reply is not tenable as ongoing up-gradation of SMS-II and HSM would not be completed before integrated commissioning of new CRM-III, and modernisation of SMS-I was at tendering stage (February 2015) and would take at least 30 months to be completed after award of contract.

2. The Board approved (May 2007) the capacity expansion in RSP to 4.5 mtpa from 2.0 mtpa of hot metal and corresponding facilities for production of crude steel including a new plate mill of 1.8 mtpa. Feeder projects in upstream like new blast furnace, new converter for SMS-II were ordered, but the capacity of a new plate mill in downstream was reduced from 1.8 mtpa to 1.0 mtpa in June 2009. Reduction thus created an idle capacity of 0.8 mtpa in SMS.

Ministry stated that output from 0.8 mtpa of excess capacity of SMS-II in RSP will be sent to BSL or sold, and would also provide input for upcoming new Hot Strip Mill. Reply is not tenable. RSP had planned to use output of SMS-II for production of finished product and it was not to be sold as semis which would fetch lesser contribution of ₹ 32.32 crore per year. Sending excess output from SMS-II to BSL entailed additional cost of freight. Use of crude steel in HSM may take another two or more years as tender finalisation of this project has not been completed (February 2015).

2.1.4 A new SMS plant in SSP was installed without captive power facility

The new SMS plant with production capacity of 1.80 lakh tonne per annum stainless steel slabs installed (February 2011) in SSP uses a power intensive Electric Arc Furnace (EAF) route and required uninterrupted power supply. SSP's power load requirement increased to 95.5 MVA from 26.5 MVA (before the expansion). This meant reliance on supply of power from State Electricity Board which was uncertain. However, the Company did not plan captive power facility of its own in MEP. After installation of the SMS, the State Electricity Board reduced the supply and imposed monthly restriction on power consumption. As a result, the production capacity of SMS installed at total cost of ₹ 411.38 crore remained underutilized since 2011. Ministry accepted that there was delay on the part of the Company to take corrective measure to install a 2x60 MW power plant to meet power requirement of SSP.

2.2 Appointment of Consultant

There was no consistent policy regarding appointment of Consultants. The Company appointed consultants for MEP projects in SSP on limited tender basis whereas MECON was appointed as consultant³ on nomination basis for planning and execution of MEP projects of its five integrated steel plants (other than Mill Zone in RSP). Terms of reference and condition of works including financial terms with MECON were finalised after completion of major consultancy work. There were no penal clauses to safeguard the organisation against defaults at any stage of the project including delays, poor planning and supervision, and excessive cost overruns attributable to the consultants. The appointment of consultant without inviting bid was in violation of the Central Vigilance Commission (CVC)'s guidelines.

Audit noted that adequacy of project management capacity of MECON was assumed based on a written assurance from them. There was acute shortage of skilled supervisors and surveyors in MECON for supervision and inspection of structural erection at ISP site.

Ministry stated that MECON had the advantage because they were associated with the earlier capacity expansion of SAIL; they had already been assigned to prepare CPFR for the MEP projects and had drawings; and had offices at SAIL plants. Reply of the Ministry may be viewed against the following facts:

- Open tender could have provided opportunity to the Company to conduct structured assessment of capacity of MECON and other consultants. The Company had appointed M/s Dastur & Co, as consultants for SSP on limited tender basis in which MECON had also participated and MEP projects in SSP were commissioned by September 2010. Appointment of MECON on nomination basis on the strength of their past credentials does not mean that their capacity and skill in providing project management services should not be reassessed for a job in hand. Last capacity

³ 16.12.2006 (BSL), 17.04.2007 (BSP), 30.05.2007 (RSP), 03.08.2007 (DSP) and 11.01.2006 (ISP)

expansion plan implemented by SAIL during 1989-1997 was for only 1.4 mtpa. MECON had not taken up consultancy job of such magnitude in the past.

- MECON's scope of work in ISP also included providing full project management services. Integrated commissioning of the MEP projects in ISP was delayed by over four years. Project management capacity within MECON and the Company was so deficient that the Company had to appoint (August 2014) another consultant on nomination basis for speedy completion of the project.

Recommendation:-

- 1. The Company may review its policy for appointment of consultants through nominations. Selection of consultants through open tender would provide opportunity to conduct structured assessment of their project management capacity as well as to obtain fair market price.**