Ferro Alloy Industries in the Liberalised Economy
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Export of Ferro Alloys in the Changed conditions of Liberalised Economy

D.M. NETERWALA
The Indian Ferro Alloy Producers' Association, Bombay – 400 011, India

ABSTRACT

Ferro alloy is most vital for country's steel production and value adding industry which can earn valuable foreign exchange through exports. The industry was subsequently delicensed and liberalized in 1991 and with liberalization, it has seen mushroom growth and number of small and medium units have emerged in production of bulk ferro alloys. The industry and power accounts for 45 to 75% of the cost of production. The export of ferro alloys was around 15% of production in 1990-91, has seen marginal increase in quantum after the liberalization. Exports were nearly 24% of the country's production during 1994-95. The industry has potential to increase its exports, but unable to compete in the international market, mainly due to high power tariff in India as compared to power tariff available for ferro alloy producing units in other countries. This paper discusses the various aspects of bulk ferro alloys, capacity, production and exports, liberalization, raw material availability, constraints faced by the industry in post liberalization, outlook for the future for exports and suggestive measures.

Keywords : Ferro alloy industry, Liberalization, Exports.

INTRODUCTION

It is a well known fact that Ferro Alloys is basically an iron bearing alloy with constituents to be passed on to steel to make specific objectives, and no steel can be produced without the addition of ferro alloys at some stage of its manufacture. Ferro Alloy Industry therefore being the most vital for country's steel production, is also a value adding industry, which can earn valuable foreign exchange through export. Ferro Alloy Industry was established in India during the Second Five Year Plan as an ancillary to cater to the growing needs of the domestic steel industry. The tonnage production of ferro alloys viz., manganese and silicon

through Electro Carbo Thermic Process started in the country in mid fifties followed by Ferro Chrome in late sixties. In the course of time, the production capacities of these alloys have increased appreciably. During this period, substantial amount of ferro alloys were exported after meeting the country's internal demand. Expansion of Ferro Alloy Industry took place during the eighties on product diversification, assimilation of advance technology and setting up of Export Oriented Units to earn valuable foreign exchange for the country.

Liberalisation in the Ferro Alloy Industry

Ferro Alloy Industry was thrown open and liberalised along with other industries in July 1991 and licensing of the Industries dispensed with. With the result, a number of Small and Medium Units having transformer rating of 2.5 MVA to 10–12 MVA emerged in production of Bulk Ferro Alloys. At present, there are more than 100 Ferro Alloy Producers in India as against 20 odd producers before liberalisation. Transformer capacity has touched about 100 MVA and by tonnage it has crossed 1.25 million tonnes capacity. Capacity of Manganese Alloys is ranging from 650,000 to 675,000 tonnes, Ferro Silicon about 175,000 tonnes and Ferro Chrome about 300,000 tonnes. In addition to this, there exists an installed capacity of 150,000 tonnes of 100% Export Oriented Charge Chrome from three units and 45,000 tonnes of Ferro Silicon and Silicon Metal from one unit. With liberalisation, the Industry is also given the broad–banding facility i.e., any producer of ferro alloys can switch over their furnaces for producing any ferro alloy depending upon the market conditions.

Raw Material Availability

Raw material viz., manganese ore, Quartz, chrome ore, reductants, fluxes - resources are in plenty in India and there is no dearth of such raw materials. However, the quality of raw material is causing problem to some extent. The quality of ores vary widely from location to location depending on the type of ores/raw materials. It is therefore difficult to find out the right quality of ores/raw materials, due to which individual plants are forced to operate with mixture of various quality of ores - in particular manganese ore for producing Manganese Alloys.

Power

Ferro Alloys is a power intensive industry. The total connected load of the industry has grown almost 8 to 9 times from 130 MVA in mid sixties to about 1000 MVA as on date. The industry has been forced many times to perform at a

low capacity utilisation level due to shortage and discontinuous power supply. This is affecting the techno–economic performance. The situation of power supply to the industry is still not comfortable. Therefore, some of the units have commissioned their own captive power plants, while some other plants are planning to set up their own captive power plants. Power cost in India is increasing every year, which plays a very vital role in the performance of the industry. The power tariff is almost 3 to 10 times higher than the power tariff available in other competing countries in the world. This has affected the performance of the industry considerably.

Production of Ferro Alloys

Production of different bulk ferro alloys for last five financial years is given in Annexure 1. It is observed from the enclosed Annexure that the Capacity utilisation is ranging from 50 to 55% and the growth rate is around 10% per annum, except in the year 1993–94. In 1994–95, however the production registered a sharp increase by 17% over the previous year. During 1995–96 the increase in total production is estimated at 6.4% over the previous year. However, for manganese alloy and ferro silicon the production has come down by 2% and 13.36% respectively. The chrome alloys production during this year has jumped up by 26% over the previous year.

EXPORTS

Capacity increase of the Ferro Alloy Industry in general followed the course to meet the planned target levels of steel industry in the country and also to remain potential exporters of ferro alloys in the international market for earning substantial foreign exchange for the country. However, the performance of the Industry started deteriorating from mid seventies due to various reasons, the foremost being inadequate and discontinuous power supply, high cost of electrical energy, fuel, oil, raw materials and transportation charges etc.

Exports started sliding from 1978 onwards. During the eighties, it has seen the maximum erosion in the export performance of the Ferro Alloy Industry. However, after initiation of the liberalisation programme, there has been a spurt in the export of bulk ferro alloys like all other Sectors, exports from this Sector have also increased from 1991–92 onwards. Exports of various ferro alloys for last five years and the percentage of exports over production is given Annexure II. The exports have increased from 15% of production in 1990-91 to around 25% of production in 1995-96. In terms of value, the exports were around Rs. 250 crores for last three years and the same has seen a considerable increase,

approximately of Rs. 451 crores during 1995–96. The quantum of Silico Manganese and Ferro Chrome exports have increased by 8% and 12.63% respectively over the exports during last year. Exports could have stepped up further, if power was made available at international tariff level. India has established itself as one of the major exporters of Ferro Chrome/Charge Chrome in the World.

With the introduction of liberalised economy in the country, Government Policy is to make raw material available at international price to the Indian Producers for exporting its products. However, such provision was not made available to Ferro Alloy Industry immediately after liberalisation.

With constant follow–up and persuasion from Ferro Alloy Producers' Association and the members of the Association, the industry started getting power from NTPC at a reduced power tariff as compared to the tariff of State Electricity Boards in the States of Andhra Pradesh, Maharashtra, Madhya Pradesh, Orissa and Karnataka. Units in these States, in order to get this NTPC power, have to dedicate their furnace exclusively for export purpose. This has given certain benefit to industry to concentrate on exports and compete with other countries in the international market. But the Industry still feels the power tariff from NTPC is also higher than the power tariff available to other countries like Norway, Sweden, South Africa, Finland, Brazil, China etc., who are the major producers and exporters of ferro alloys. Further, some of the units in some States are getting NTPC power only for 16 hours a day, which increases the cost per tonne of ferro alloy for export production.

Industry has also got oil at international price for units those who have captive power plants. The industry is given facility as is given to other industries for importing its raw materials duty free against exports of ferro alloys with fixed input–output norms. As far as Noble Ferro Alloys, India has exported small quantity of Ferro Molybdenum and Ferro Tungsten during 1994–95. However, there was no export prior to this as well as during this financial year.

CONSTRAINTS FACED BY FERRO ALLOY INDUSTRY AFTER LIBERALISATION

- In tune with liberalisation, the Government has reduced the basic Import Customs duty on ferro alloy to 50% from 85% in 1994–95, then reduced to 30% in 1995–96 budget and the same was further reduced to 25% in 1996–97 budget. The imports of ferro alloys is increasing every year and is likely to increase further due to the reduction in import duty and high cost of production indigenously, due to increase in power tariff.
- After liberalisation, the capacity of ferro alloys has increased considerably,

however, the demand for steel has not increased to the extent of capacity increase of ferro alloys.

- o Capacity utilisation of the industry is around 50 to 55% including exports of ferro alloys. Remaining capacity is lying idle. The industry could not compete in the international market mainly due to high power cost, high raw materials cost and transportation charges.
- o Exports of raw materials — major share of manganese ore and chrome ore are exported to China and in turn China exports its ferro alloys in the international market undercutting the prices. Thus Indian Producers could not compete with China in the international market despite using the country's ore without any imports due to very high energy charges.
- o Procedural delays in settlement of duty drawback claims, assessment of the cargo by Customs Officials, endorsement of analysis reports by Customs Authorities etc.
- o Infrastructure problems in the area of transportation, power, Port congestion, non–availability of wagons for carrying vital raw materials and inputs from the procurement point to the plants and finished products from plants to different Ports etc.

OUTLOOK FOR FERRO ALLOYS

There is a significant geographical shift towards developing countries, there is tendency for silico manganese to be favoured, manganese alloy for electric steel production, where as integrated steel plants favour ferro manganese. As the world steel industry enters growth phase, an upturn in demand has been predicted for both ferro chrome and ferro manganese for the remaining years of the nineties. In the case of Ferro Chrome the Industry watchers feel that increase in demand may not bring forth noticeable increase in price as there is latent over capacity globally. This year the prices have already come down drastically. As far as Indian Ferro Alloy Industry is concerned, it can meet the requirement of Indian Iron and Steel Industry beyond 2001–2002 with the existing capacity, and still will be left out with 30 to 35% capacity for export production of bulk ferro alloys. If power is not made available at international tariff, India will not be able to export ferro alloys in future. Possibility of exports of Noble Ferro Alloys is quite negligible in near future as certain raw materials have to be imported, where the import prices are much higher and the finished product prices are not that lucrative in the international market.

CONCLUDING REMARKS

It is observed that capacity utilisation for the Ferro Alloy Industry has been in

the range of 50 to 55% over last few years, however, of late with the revival of the Steel Industry, the rate of capacity utilisation is likely to show an upward trend. India has fairly large reserves of domestic ores i.e., manganese and chrome ore to produce the bulk ferro alloys. Infect, India is the the fifth largest producer of chromite ore in the world. India should discourage exports of mineral wealth particularly Manganese ore, where the Ferro Grade reserves are limited, and it is necessary to preserve the same for indigenous consumption on a long term basis. It is necessary that value added product should be encouraged for exports rather than exporting the ores which are the basic raw material.The country has potential to increase its exports of ferro alloys to over Rs. 600 crores provided Government supplies power at international price for power intensive industries like ferro alloys and thus, India could be one of the regular exporters of ferro alloys in the world in near future.

Annexure - I

THE INDIAN FERRO ALLOY PRODUCERS' ASSOCIATION

Statement showing Production of Ferro Alloys during the years 1991-92 to 1995-96 as available with the Association

Quantity in Tonnes

Product	1995–96	1994–95	1993–94	1992–93	1991–92
Members					
HC FeMn	1,55,413	1,61,768	1,36,478	1,91,827	2,01,184
MC FeMn	2,402	1,125	1,218	5,880	10,215
SiMn	1,68,252	1,42,306	83,378	92,672	69,514
FeSi	56,747	67,043	55,172	56,293	42,772
HC FeCr/ChCr	2,68,925	1,99,677	2,16,690	2,09,521	1,78,107
LCFeCr	3,047	5,011	6,163	6,626	11,370
Si Cr	880	4,074	3,969	5,888	3,062
FeSi Mg	1,214	914	443	42	32
Sub. Total 'A'	6,56,880	5,81,919	5,03,511	5,68,749	5,16,256
Non-Members (Estimated)					
HC FeMn	22,000	40,000	20,000	20,000	25,000
SiMn	20,000	30,000	30,000	13,000	5,000
FeSi	23,000	25,000	25,000	30,700	32,000
HC FeCr	41,000	40,000	35,000	40,000	40,000
Sub. Total 'B'	1,06,000	1,35,000	1,10,000	1,03,700	1,02,000
Grand Total A + B	7,62,880	7,16,919	6,13,511	6,72,449	6,18,256

Dated : 12th August 1996.

Annexure - II

THE INDIAN FERRO ALLOY PRODUCERS' ASSOCIATION, BOMBAY

Statement showing Exports of Ferro Alloys and percentage of Exports over Production during 1991-92 to 1995-96 as available with the Association

Quantity in Tonnes

Product	1995–96	1994–95	1993–94	1992–93	1991–92
Members					
HC FeMn	2,960	5,349	4,204	8,331	14,973
SiMn	55,379	51,276	35,877	15,516	4,368
FeSi	144	96	—	—	—
HC FeCr/ChCr	1,31,855	1,17,072	1,28,762	1,27,037	1,05,593
FeSi Mg	—	216	19	—	—
Total	1,90,338	1,74,009	1,68,862	1,50,884	1,24,934
Percentage of Exports over Production	24.95%	24.27%	27.52%	22.43%	20.21%

Dated : 12th August 1996.