Invitation of views/comments on Study Report entitled ‘Review of performance of Cement Industry’ Prepared by the Tariff Commission

On the suggestions of the Department Related Parliamentary Standing Committee on Commerce, the Tariff Commission has conducted a study on ‘Review of Performance of Cement Industry’ for the year 2010-11. The study has two objectives:

(i) To review the performance of the Cement Industry including normative price of the Cement and

(ii) To monitor the movement of retail prices viz-a-viz normated fair price.

2. There are 70 companies in the sector in India with 183 large and 360 mini plants. The sector has 1.3% share in GDP. It employs 1.4 lakh persons. The study covers only 97 large plants.

3. Three major types of cement viz. Ordinary Portland Cement (OPC), Portland Pozzolana Cement (PPC) and Portland Blast Furnace Slag Cement (PBFSC) are produced in India with shares of 32.63%, 67.06% and 0.31% respectively in the production of the plants covered in the study.

4. The findings of the Study may be summarized as follows:

(i) Capacity of the industry has increased considerably from 168 MT in 2006-07 to 283 MT in 2010-11. However, capacity utilization has decreased from 93% in 2006-07 to 74% in 2010-11. Decline in capacity utilization is mainly attributed to decrease in demand because of economic down trend, depleting availability of leased lime stones, lack of assured coal supply and linkage and volatile fuel price.

(ii) The second finding relates to the available lime stone reserve of 90 billion tonnes in the country which can last only for about 35-41 years with existing level of utilisation.

(iii) The third finding is regarding the pricing of the cement. The normative price of cement (price as per norms based on cost of raw material, power, conversion cost, return on capital etc. and all other incidental expenses) for a bag of 50 kgs. including maximum rate of tax should be Rs.199/- whereas the actual price during 2010-11 was Rs.244/-
resulting in an abnormal profit of Rs.45/- per bag. It has accordingly been recommended for monitoring the price movement of cement.

(iv) Regarding underutilization of capacity, it may be mentioned that capacity utilization may improve subsequently once the economic recovery phase starts and demand for cement increases. The Working Group of 12th Five Year Plan mentions about total expected capacity to be created / commissioned at the end of Eleventh Five Year Plan by 2011-12 is 331 million tonnes, about 10 per cent higher than the plan target. The Working Group also projects installed capacity requirement of 1035 MT by 2027. Such huge requirement of projected capacity is more than three times the existing capacity. If the present level of utilization results in depletion of available limestone reserve in 35-41 years, there may not be adequate limestone left to create 1035 MT capacity by 2027. This implies the need for exploring the alternative raw material or substitute of cement. The report suggests the following to augment limestone availability:

a. Ensuring gainful utilization of marginal and low grade limestone through beneficiation and blending;

b. Discovery of new sources of limestone;

c. Promoting increased use of de-carbonated/blending material in cement to displace clinker;

d. Concerted RD efforts to towards invention of limestone substitutes including nano-cement in pipe line; and

e. Evolving a balanced long term limestone security strategy.

5. The full chapter on ‘Findings and Conclusions’ of the study report is available in DIPP Website.

6. Views/comments on the findings of the study report are invited from the public including various stakeholders. Comments/views may be e-mailed at talleen.kuman@nic.in endorsing a copy to srikara@nic.in latest by 31st May, 2013.
CHAPTER 8

FINDINGS AND CONCLUSIONS

8.1 Introduction

The Commission studied the financial and technical performance of the selected cement plants across the country and movement of the retail price of cement vis-à-vis the cost of production of cement in India. Findings based on the analysis as well as the significant policy issues which emerge are given below :-

8.2 Augmentation of Limestone Availability

8.2.1 The production of cement primarily depends upon the availability of the limestone. As per Indian Bureau of Mines, the total cement grade limestone (good quality) reserve available in India is around 90 billion tonnes which can meet 35-41 years requirement of cement plants. This shows that the limestone deposits in the country are likely to diminish over a period of time. Even the existing mines operated are very old and the limestone mined is of low quality. Some of the manufacturers add sweetener in the process to increase the quality of limestone which leads to cost increase. Further, limestone availability/requirement may be augmented with the following concurrent measures:

(i) ensuring gainful utilization of marginal and low grade limestone through beneficiation and blending using appropriate technology
(ii) exploration activities for discovering new sources of limestone in unknown areas
(iii) promote increased use of de-carbonated/blending materials in cement to displace clinker (and hence limestone) requirement
(iv) concerted R&D efforts are needed to accelerate the invention of lime stone substitutes including nano-cements in pipeline.
(v) Also, evolve a balanced long term limestone security strategy for the utilization of locked limestone available in forest areas, CRZ areas and other regulated areas.

The study brings out that it is the depleting limestone resources which is an area of concern. Policy initiatives focusing on reducing costs and expanding capacity may have to be relooked in this context. A greater focus on green technologies for building constructions may be the need of the hour.

(Chapter 2, para 2.6.4)
8.3 Process Technology and Upgradation

8.3.1 Cement industry in India is currently going through a technological change as a lot of upgradation and assimilation is taking place, currently, almost 99% of the total capacity is based entirely on modern dry process, which is considered as more environment friendly. Only the rest 1% uses old wet and semi-dry process technology. This shows that substantial technological improvements have been brought out and most of the cement plants in the industry have a state of the art technology i.e. dry process technology.

(Chapter 4, para 4.2)

8.4 Installed Capacity and Capacity Utilisation

8.4.1 The installed capacity of a cement plant depends on the average daily rate of production that can be achieved and annual onstream days for which the plant can be operated. Peak production rates which could be attained over a reasonable period of time will give an indication of installed capacity for the production of cement. Keeping in view nature of operation of rotary kiln and cement mill, the annual operating days for rotary kiln and cement mill have been adopted as 330 days and 300 days respectively after providing reasonable allowance for down time due to schedule and other factors. Annual assessed capacity has been computed based on best three monthly production rates achieved and annual onstream days and no. of machines installed. This assessed capacity is compared with the installed capacity reported by the cement plant, whichever is higher is adopted as assessed capacity.

(Chapter 4, para 4.4 to 4.8)

8.4.2 The capacity utilization of large cement plants ranges between 74% (2010-11) to 93% (2006-07) during the past five years. The capacity utilization over the years shows a downward trend as compared to the capacity creation. The capacity utilization came down from 93% during 2006-07 to 85% during 2007-08 and further to 83% during 2008-09 and 74% during 2009-10 & 2010-11. The overall weighted average capacity utilization of the cement industry for the past five years works out to be 80%. It is evident from the above that the capacity is being enhanced consistently where as its utilization has been declining. The gap is widening as corresponding growth in demand of cement has not matched the growth in capacity. Scheduled maintenance,
process problem/equipment breakdown, power failure were the other reasons for under utilization of the capacity. Keeping in view the performance of the cement plants and considering demand/production growth, the Commission has adopted the norm of capacity utilization as 90% for clinker and 85% for cement for determining the normated production level.

(Chapter 4, para 4.9 & 4.10)

8.5 Use of Alternate Fuel

8.5.1 Coal is an important input in the manufacture of cement both as a fuel and as a feedstock. In view of the poor railway linkage of domestic coal supply, non fulfilment of coal requirement as per fuel supply agreement and much higher price of open market coal and import of coal, there is a need to increase the linkage of domestic coal. Use of alternative fuel in the kiln as a substitute will also reduce the dependence on coal. It was observed that Ultratech Cement at Rajasthan had started utilizing the wastes generated by the Municipal Corporation as fuel for its plants. ACC-Gagal has also tried to utilize the waste generated by the Himachal Municipal Corporation as a alternative fuel in the kiln. Use of bio wastes/fuels in the cement manufacture is an environmental friendly measure. Policy measures like capital and interest subsidy to cement units using bio wastes/fuel in the manufacture of cement can be thought about to encourage such initiatives by the cement units.

(Chapter 4, para 4.12.1 to 4.12.3)

8.6 Comparison of Average Cost Structure of Selected Cement Plants (2010-11 and Present Study Report)

8.6.1 Taking into consideration the average normative consumer price of a 50kg bag of cement (for all varieties of cement taken together) works out to Rs. 199/- at maximum level of VAT and ED. Comparing this with the all India average retail price of Rs 244/- (worked out on the basis of retail price data obtained from the Department of Industrial Policy and Promotion) it can be concluded that cement had been sold by cement units at higher rates and profits to the extent of Rs 45/- per bag as compared to Rs 51/- per bag in the last report. There is scope of further reduction in the retail price of cement. Testimony to the findings of the Commission is the PTI report dated 5th January, 2012 which states that the three cement companies in Himachal Pradesh have agreed to reduce the price of 50 Kg bag of cement by Rs. 25/- (per bag). Hence, there is need to monitor the price movement by the Commission as reported by Department Related Parliamentary
Standing Committee (DRPSC) on Commerce in their Report. A comparison of cost structure of the units studied in current study and last year's study (August, 2010) is shown in Chapter 6 (Table 6.1). The important observations are as follows:

- The fair consumer price per 50 kg of bag is 3.65% higher than that of the fair consumer price in the last report (i.e. from Rs.192 to Rs.199 Per 50 Kg Bag).
- Profit margin over normative return has reduced by 13.46%.
- Cost Inflation Index had increased by 22.16% in 2010-11 compared to 2009-10. In comparison to that, raw material cost increased by 8.83%, packing and selling & distribution plus returns increased by 3.41%.
- Power & utilities cost increased by 1.69% while the conversion cost declined by 3.43%.
- There is change of product mix due to larger number of selected cement plants in the present study:

<table>
<thead>
<tr>
<th>Previous Study (2009-10)</th>
<th>Present Study (2010-11)</th>
</tr>
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<tbody>
<tr>
<td>OPC</td>
<td>25.88%</td>
</tr>
<tr>
<td>PPC</td>
<td>62.39%</td>
</tr>
<tr>
<td>PBFSC</td>
<td>11.73%</td>
</tr>
</tbody>
</table>

The comparison of cost & pricing from the previous report (2009-10) and the data for 2010-11 from the present study on cement pricing also brings out that irrespective of the costs, the actual average consumer prices have remained the same. This is because of the large profit margins available to the companies.

(Chapter 6, para 6.6)

8.6.2 In the previous study report of the Tariff Commission (August, 2010), it was stated that possibility of existence of cartelisation in Indian Cement Industry cannot be fully ruled out and this needs to be further investigated. These issues are being examined by competition Commission of India as observed from its order dated 20th June, 2012 imposing penalties on some cement companies

8.7 Sustainable Development of Cement Industry

8.7.1 Cement industry is a core industry providing key input for building construction and infrastructure development. However, it's production is resource intensive, involves extensive mining with consequent environmental impacts, emission of global warming and other gases, etc. Sustainable development measures are necessary for continued availability of cement at
reasonable price, over long-term. It is well recognised that SD initiatives lead to increased resource efficiency, improves cost-competitiveness and enhances economic returns.

(Chapter 7, para 7.1)

8.8

8.8.1 Various SD goals such as: need for cement centric eco-industrial parks, conservation of virgin materials & their substitution by alternate materials, fossil fuels to alternate fuels (mostly waste based) substitution, improvement in energy efficiency, to enhance waste heat recovery, to reduce GHGs (& other) emissions and to reduce impacts of mining, etc. having potential for improving resource efficiency & cost-competitiveness of cement have been identified and discussed in Chapter 7.

(Chapter 7, para 7.3)

8.8.2 Some cement companies have taken SD initiatives. It requires to be given further impetus through future mission-mode technological developments (such as nano cement particles & CCS technology), financial assistance for critical R&D, creating enabling environment and policy support needed for amendments in laws for usable potential waste in cement industry, corresponding changes required in BIS standards, etc. These SD initiatives will have to be pursued with collaborations of all stakeholders i.e. leading cement producers and Industry Associations; concerned Govt. Departments or Regulatory bodies, R&D and Academic Institutions.

(Chapter 7, para 7.5.3)