


Energy Conservation Measure implemented in 2007-2008

(To be filled up separately for each Energy Conservation Measure)

ID to be filled by BEE	Pre-Heater Fan Impeller Tipping to increase the volume	Sector
Year to be filled by BEE		Technology
<p>Description of the energy conservation measure:</p> <p>FLS kiln commissioned in Feb 2006, is having an installed capacity of 3800 TPD with 5 stage preheater with Inline calciner. The preheater fan made by Reitz is designed for 612720 m³/hr @ 593 mmwg , 310 deg C.</p> <p>The plant was operating at 4250 TPD with maximum speed of preheater fan before May 2007. In order to make use of the good market potential, DCBL Management decided to increase the clinker and hence cement production rate with whatever minor modifications possible.</p> <p>Upon analyzing the preheater fan design characteristics we found that the clearance between the impeller tip to casing cut off is 11.5% against the standard minimum requirement of 8 % . Management decided to utilize this extra gap margin available by increasing the impeller dia from 2770 mm to 2898 mm by tipping 64 mm length plate at the end of the impeller blade as shown in the figure.</p> <p>The modification was carried in the small shut down by the plant team in May 2007. After startup the we were able to increase the gas volume for the same speed and could achieve extra clinker production of 185 TPD.</p> <p>This will give an opportunity to produce extra cement of 278 TPD cement with a realization of Rs 14 Crores per annum.</p>		
Picture/ sketch/ drawing before modification (if available)	Picture/ sketch/ drawing after modification	
		

Agency that executed the project (with complete address and email):					
Total investment, Rs.: 0.0 lakhs			Year of implementation: 2007		
First year energy cost savings, Rs.:					
First year other savings, Rs.:					
Total Annual Energy savings (Rs. in Lakhs) : 1415					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before					
Energy consumption after					
Total Annual Electricity Savings					
Energy tariff, Rs/ kWh/ Ton/ Nm³/ kL ...					
Company complete address: Dalmia Cement (Bharat) Limited Dalmiapuram – 621651 Dist : Trichirappalli Tamil Nadu				We authorise Bureau to use this information for dissemination Signature Date	

Note: Please submit this sheet separately for each Energy Conservation Measure implemented in 2007-2008 and a CD containing the above information may be please be enclosed.

Energy Conservation Measure implemented in 2007-2008

(To be filled up separately for each Energy Conservation Measure)

ID to be filled by BEE	Stopped one Blower fan below dry fly ash silo for silo bin extraction	Sector
Year to be filled by BEE		Technology

Description of the energy conservation measure:

Cement silo having eight extraction gates and there are six aeration lines are given for each gates. One or two gates are being opened for extraction at a time. One dedicated blower is available for aeration in each Cement Silo. Blower no. 61NBL4 & 61NBL1, capacity is 7.5 Kw/Hr and air volume is 660 m3/hr.

Air slide boxes are connected from each gate to bin (at silo bottom) to transfer cement. One dedicated Fan is available to supply air for these air slide boxes. Fan number 53NFN1&3, capacity is 7.5 kw/hr. and air volume is 1200 m3 / hr. One stand by fan also available for this fan, number K2NFNH.

One dedicated blower is available for bin (at silo bottom) aeration. Blower number is K2NBL4, Capacity is 7.5 kw/hr and air volume is 1200 m3/hr.

Air slide boxes are connected from Bin (at silo bottom) to elevator to transfer cement. One dedicated Fan is available to supply air for these air slide boxes. Fan number 63NFN 5&7, Capacity is 7.5 KW/hr and air volume is 1200 m3/hr.

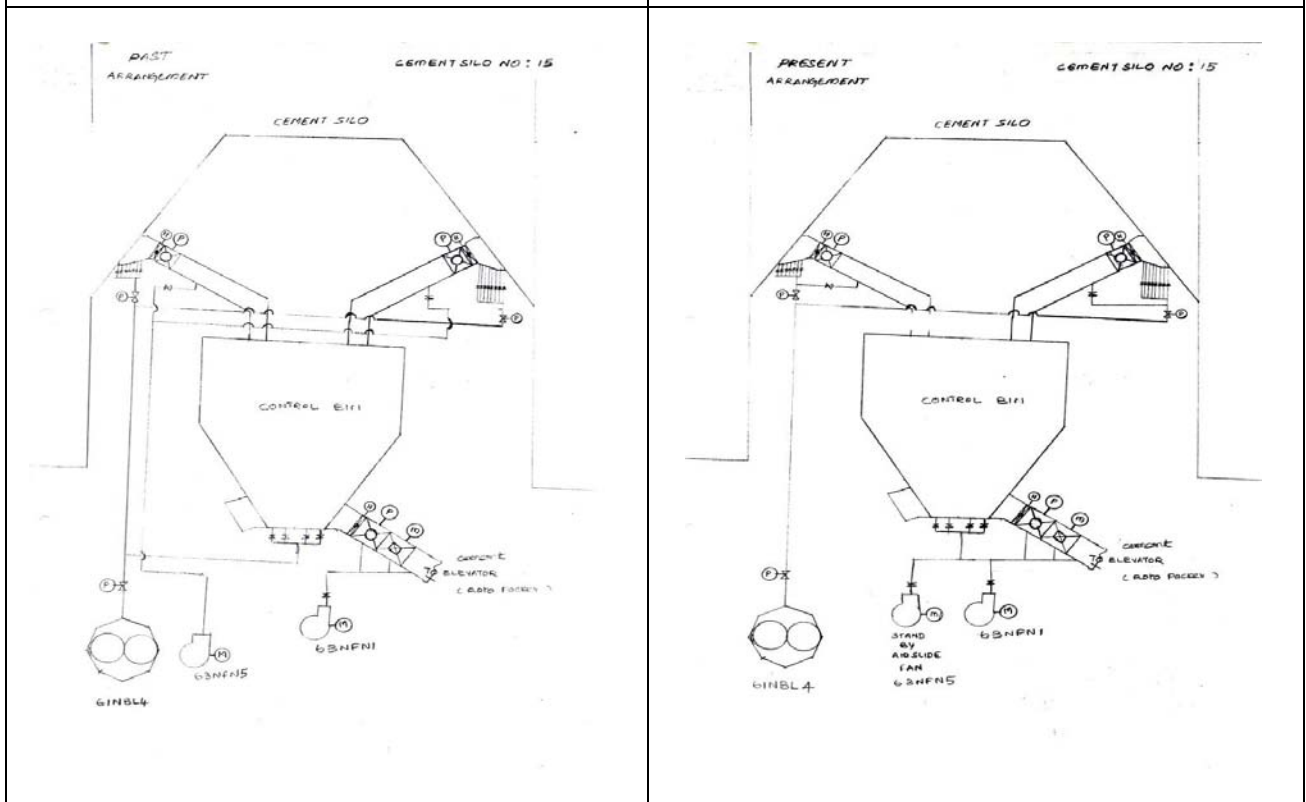
Arrangements are shown in below drawing.

One airline is connected from silo aeration / extraction blower (number 61NBL4 & 61NBL1) to air slide boxes, which are connected between silo extraction gates to silo bottom bin. It is implemented and working well.

As per the present arrangement both fans 63NFN5 & 63NFN3 are not required to operate for CEMENT extraction from the silo 15 & 17.

Picture/ sketch/ drawing before modification
(if available)

Picture/ sketch/ drawing after modification



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Agency that executed the project (with complete address and email):					
Total investment, Rs.: 45000			Year of implementation: 2007		
First year energy cost savings, Rs.:					
First year other savings, Rs.:					
Total Annual Energy savings (Rs. in Lakhs) : 1.16					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before					
Energy consumption after					
Total Annual Electricity Savings Unit	35,640				
Energy tariff, Rs/ kWh/ Ton/ Nm³/ kL ...	Rs. 3.40				
Company complete address: Dalmia Cement (Bharat) Limited Dalmiapuram – 621651 Dist : Trichirappalli Tamil Nadu				We authorise Bureau to use this information for dissemination Signature Date	

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