

BIRLA SUPER CEMENT

(A unit of Grasim Ind. Ltd.)

Birla Super Cement is a grinding unit of 1.5 Million Tons capacity with a modern technology manufacturing process involves a level of sophistication & new to the Cement industry.

The technology was supplied by 'Krupp Polysis' of Germany such as Roller Press, Grinding Mill. Electronic Packer enables for automatic packing & weighing of Cement Bags. Unloading of raw material (Clinker), which is being received from railway, Wagons are unloaded by atomised 'Wagon Tippler'. All the process of manufacturing and packing are atomized & is controlled through electronic devices & PLC at Central Control Rooms Plant, Packing Plant & Wagon Tippler.

Three grades of Products i.e. OPC 43 Grade, OPC 53 & PPC are manufactured. The brand names of these qualities are 'Rajashree', 'Birla Super' & 'Birla Plus' respectively.

The plant power is connected to 132 KV Power supply of MSEB grid & having connected load of 12650 KW. All Electrical & Instruments equipment is of latest design & high efficiency.

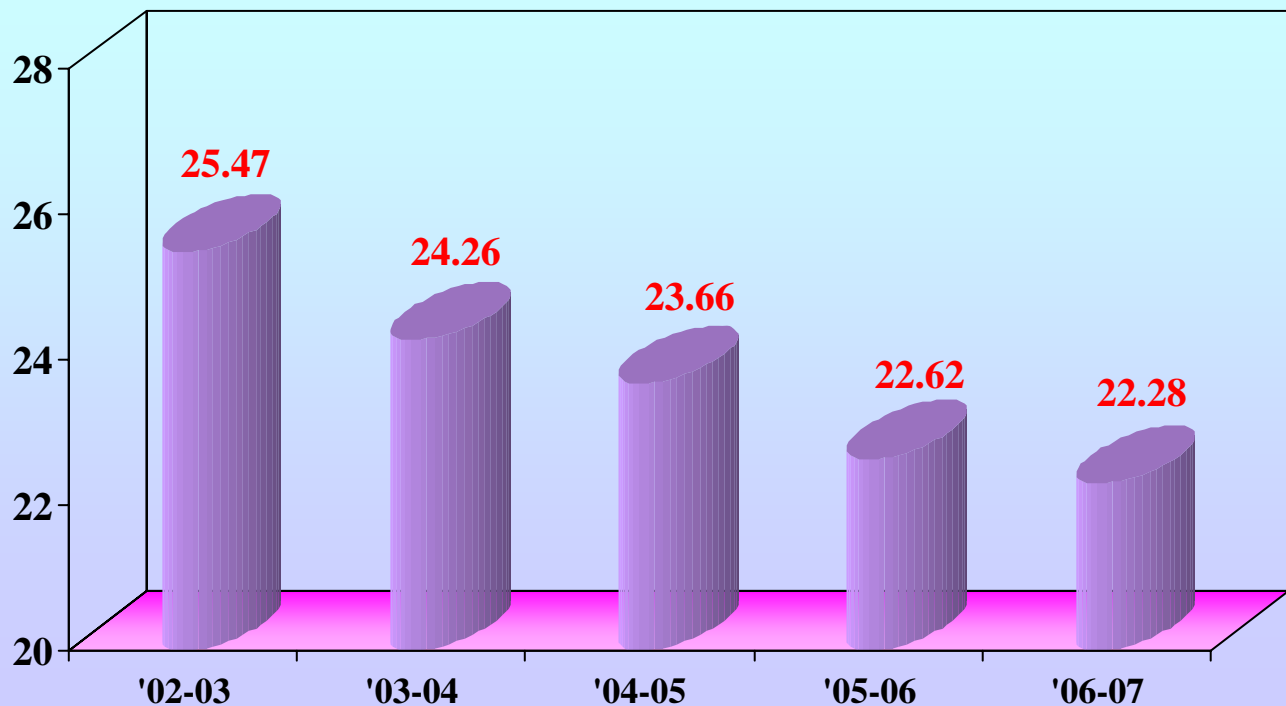
The unit has won the National Award for the "Excellence in Energy conservation" from the CII for the 2000-'00 & 2001-'02 consecutively for the outstanding saving in energy.

Energy Consumption

Year (April -March)	Annual Energy Consn.		Production in Million Tones	Specific Energy Consn.	Redn.in Specific Energy consn. Over 1997 - 98 in %	Power cost in % OF Manufacturing cost
	* KWH Million	Rs in Million		KWH / Ton of Prod.		
1997-98	44.22	158.74	1.453	30.43	--	--
1998-99	28.18	110.02	0.972	28.99	4.73	--
1999-'00	25.17	103.00	1.030	24.48	19.55	6.36
2000-'01	30.22	113.80	1.250	24.11	20.77	6.86
* 2001-'02	30.8	103.90	1.186	24.36	19.94	8.08
* 2002-'03	38.43	116.34	1.388	25.47	16.38	8.33
* 2003-'04	39.1	135.80	1.427	24.26	20.28	7.54
* 2004-'05	39.3	127.60	1.473	23.66	22.24	4.28
* 2005-'06	39.2	130.24	1.527	22.62	22.67	6.80
* 2006-'07	42.8	151.84	1.629	22.28	26.78	10.00

* Special brand of Cement ie., PCC grade is considered

Reduction in Specific Energy (U/T)



ENERGY CONSERVATION COMMITMENT, POLICY AND SET UP:

Birla super cement is committed to conserve the Energy, & it is evident in all its Policy like 'Environmental', 'Annual report' etc., the no. of activities in Energy conservation has crossed beyond 60 Nos. The staffs are motivated to take part in suggestion scheme & meetings of Energy Forum. The unit has bagged '**National Award**' for 'Energy Conservation & Energy Management' organised by CII for twice i.e., 2000-'00 & 2001-'02.

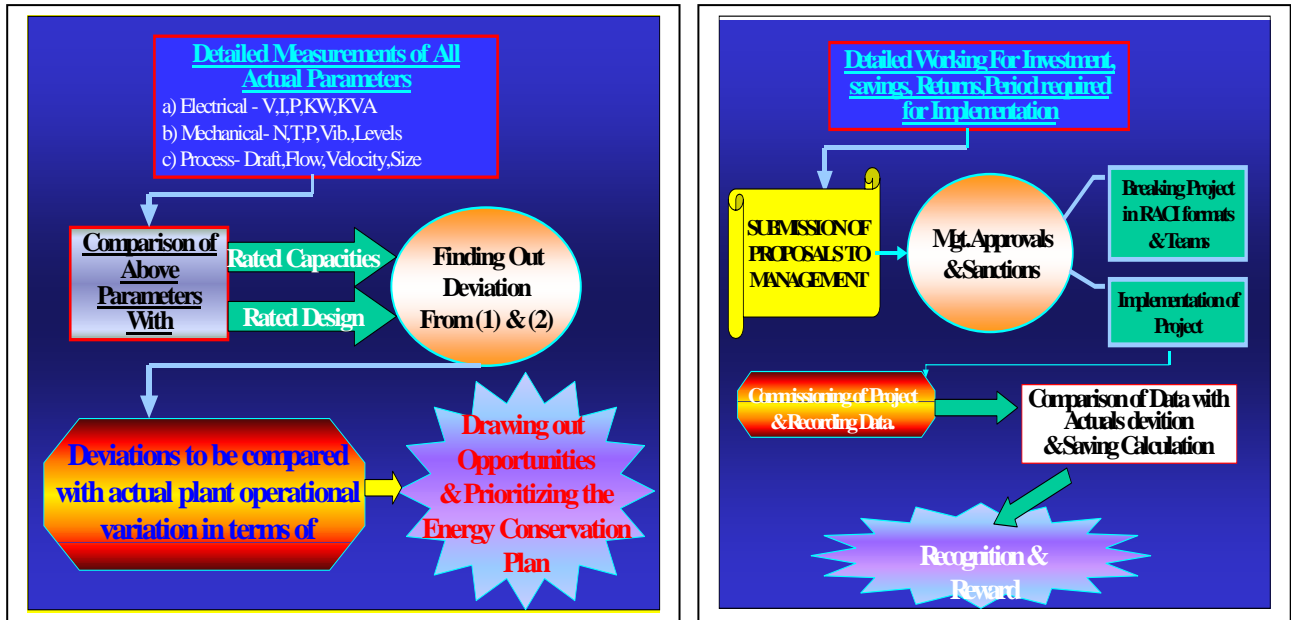
Management of 'Birla Super Cement' takes keen interest in reduction of 'energy cost' by implementing energy conservation activities and managing plant operating times to avail the maximum benefits from the State Electricity Board in 'Power factor', 'Night Consumption rebate' & 'Bulk discount'.

The Head of Electrical & Instrument Dept heads the Energy Conservation activities. The Energy Conservation forum comprising of experts from Process, Electrical, Mechanical, Instrumentation and MIS fields. The member of Energy Forum meets regularly for reviewing the activities and implementation of new identified ideas.

The Energy cost share in the production cost is 7 %.

Monitoring & Reporting of Energy Conservation are effective in our organisation through:

- * Online monitoring of Power Parameters
 - KW, P.F., Voltage, Current, Frequency. KVA etc.
- * Shiftwise recording of Power Parameters.
- * Daily calculation of Specific Energy per ton of production.
- * Monitoring of Specific Energy Consumption on
 - Monthly basis
 - Quarterly basis
 - Annual basis
- * Comparison of Actual specific energy to targets & benchmarked figures.



ENERGY CONSERVATION ACHIEVEMENTS:

The unit had implemented lot of ideas to reduce the energy consumption and the cost of energy through Energy Forum using tools like Suggestion Scheme, Good work Award, Kaizens, Focused Improvement Projects, Six-sigma Projects, Identification of energy losses etc. The following are the major activities carried out in the year 2006-'07.

- Installation of High efficiency Dust Collector.
- Installation of FRP fan blade for Cooling Tower fan.
- Solar operated switch for lighting circuit automatic operation.
- Lighting load reduction by Electronic Ballast, Asian E+ Rod, Metal Halide.
- Process modification to avoid re circulation of finished product.
- Installation of screw compressor in place of reciprocating compressor.
- Installation of Energy saver for welding machine & air conditioner units.

ENERGY CONSERVATION PLANS AND TARGETS:

The plant improving its energy conservation activities, which requires investments and the management, has behind the various projects, which will be implemented in the coming years. The lists of major investment based project are as listed below:

- Installation of S circuit in Cement mill area.
- Installation of 'Jet Tower Natural Air coolers' in place of conventional fan blades for cooling tower fan.
- Optimisation of Mill Loading.
- Installation of HT VFD for Polycom Fan.
- Installation of FRP fan blades for External cooling fan.
- Installation of High Efficiency Dust Collector Fan.
- Installation of LT VFD drives.
- Use of Grinding aids to reduce Ball Mill Power Consumption.
- Use of split Air conditioner in place of packaged air conditioner units.

The management is also working on the installation of Captive Power Plant to reduce the energy cost. The energy forum also looking for energy substitutions available for furthers improvement in this line.

ENVIRONMENT AND SAFETY:

Following are the major Environmental & Safety Activities done at our plant.

- Inclusion of PPC grade Cement to utilize waste fly ash from power plant.
- Atomized handling of fly ash through air tight tankers to avoid fugitive natural escape of fly ash to environment.
- Pneumatic unloading systems for dust free unloading of fly ash from tankers.
- Installation of additional two dust collectors at W/T to avoid dust emission.
- Installation of gypsum shed of 2*5000 MT to avoid land contamination.
- Development of rain water harvesting reservoir.
- Covering of belt conveyors to avoid dust emission during transportation.
- Construction of BT road inside plant area.
- Development of green plantation by 75%.
- Installations of sprinklers for flower garden & Lawn.
- Concrete flooring for Oil/HSD storage.
- Construction of concrete sewerage treatment plant.
- Installations of one number dust collector at packing plant area.

- Use of sweeping machine to clean the roads & ground floors.
- Charging of bore wells with rain water.
- Development of Flora & Faunas at plant.

