

BIRLA CEMENT WORKS
Chandera, Chittorgarh (Rajasthan)
(Unit of M/s. BIRLA CORPORATION LIMITED)

Unit Profile

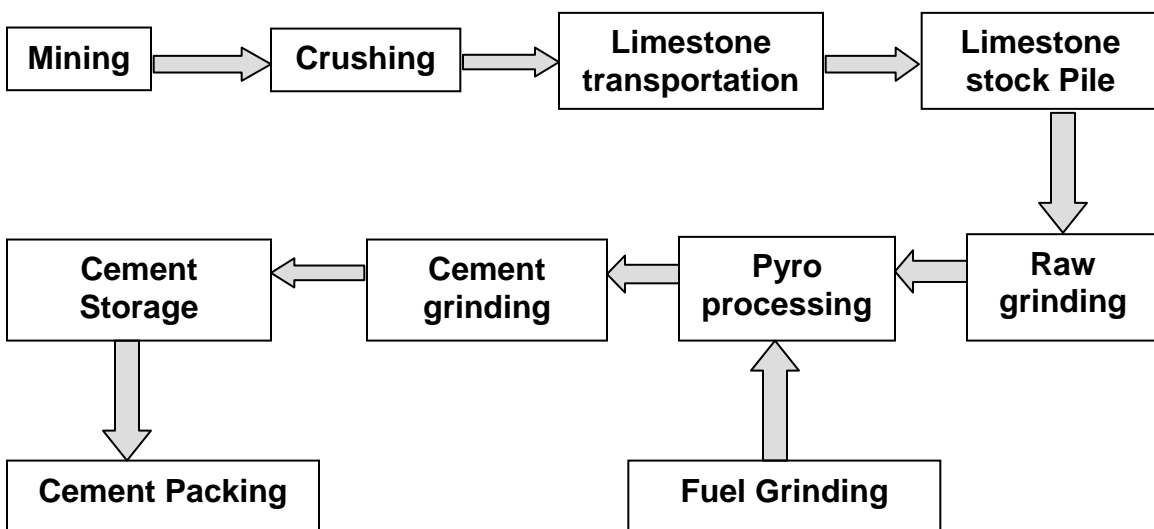
BIRLA CEMENT WORKS (BCW) is a unit of Birla Corporation Limited, which is a major producer of cement in India, particularly in the States of Rajasthan, MP, UP & WB. It is a part of Rs. 5000 crores Birla Corporation Limited (BCL), which manufactures Jute products, Synthetic Yarn, Linoleum, Carbide, Steel Castings, Auto Trims etc. in addition of cement having registered office at Kolkata. BCL is having six manufacturing units – two in the State of Rajasthan located at Chandera, two in Madhya Pradesh located at Satna, one in Uttar Pradesh located at Raebareli and one in West Bengal located at Durgapur. BCW is producing different types of cement like 43 grade OPC & PPC, which represents the best quality, easy workability, high strength & durability alongwith operational stability and economy.

Birla Cement Works has a well established market in Rajasthan, Gujarat, Haryana, and Punjab & Delhi. It's cement brand – SAMRAT (Portland Pozzolana Cement) was launched in 1997 and is widely accepted by both urban and rural customers.

The company is awarded with ISO 9001-2000 and ISO 14001 certificates. In the year 2005, the company has also been awarded with NABL certification.

In the changed scenario of globalization, Birla Corporation Limited has been able to maintain its position in the market because of better customer care and energy optimization. An Energy Cell has been working under the guidance of the Management.

PROCESS FLOW CHART:



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Energy Consumption

Energy conservation measures have been undertaken to reduce electrical energy consumption. However, the increase in specific power in 2004-05 due to more production of 43 grades OPC & less production of PPC as compared to 2003-04.

DESCRIPTION	UNIT	2005-06	2006-07	2007-08
Cement Production	LTPA	7.82	8.31	8.49
Total electrical energy consumption	Lakh kWh	736.28	755.59	796.21
Specific energy consumption	Units / T Cement	85.90	84.49	84.42
Total Thermal consumption / annum	M.KCals	542144	565035	588146
Specific Thermal energy consumption	Kcal / Kg. Cement	679	685	660

YEAR	ELECTRICITY	THERMAL
	Consumption (kWh / T Cement)	Consumption (Kcal / Kg. Cement)
2005-06	85.90	679
2006-07	84.49	685
2007-08	84.42	660

Energy Conservation Commitment, Policy and Organizational Set up

Birla Cement Works, Chanderia plant has always considered Energy Conservation as on top priority activity. Since energy consists of 52% of total cost, a smallest reduction will increase the profit of the unit. The main energy profile constitutes Electricity, Coal.

There is an Energy Cell and Energy Manager alongwith team is doing studies to reduce energy consumption. Recently a study of energy consumption was carried out by external agency – National Council for Cement & Building Materials.

Under the company's suggestion scheme, which lays emphasis on the innovative capabilities of employees in overall improvement of plant performance, especially in the field of energy conservation several employees have been awarded till date.

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Plant has been awarded with number of awards, details are given below:-

S. NO.	Name of Award	Awarding Institute
1.	ISO 9001 : 2000 Certification	BVQI, UK in 2002 to BCW & CCW
2.	IS / ISO : 14001 Certification	BIS, New Delhi in 2002 to BCW & CCW
3.	Best Productivity Award	NPC to CCW in 1989-90 & again in 1993-94
4.	Best improvement in Thermal Energy Performance	NCB to BCW in 1992-93
5.	Best improvement in Energy Performance	NCB to BCW in 1992-93
6.	Bhama Shah Award for Educational Activities	Government of Rajasthan to BCW in 1996-97
7.	Excellent award for Maintaining Health Condition of Machinery	IIT, Chennai & Vibration Engineers Consultants (P) Ltd. to BCW & CCW in 1996-97
8.	Merit Award	VEC (P) Ltd., Chennai for sustained implementation of condition monitoring and continued machine health improvement in 2001.
9.	Workers Education Trophy	Central Board for Workers Education, Udaipur, Ministry of Labour, Government of India to BCW & CCW in 1998-99 and again in 2001-02
10.	Best Supporting Core Plant	Regional Training Centre (North), Nimbahera in 1998-99, 2000-01 & 2001-02.
11.	Awards to Captive Mines (Safety Week celebration in Udaipur region)	DGMS, Udaipur – 1995(1), 1996(2), 1997(1), 1998(3), 1999(4), 2000(2), 2001(5) & 2002(3).
12.	Best Income Tax Payee (TDS) Award	Income Tax Department, Udaipur range to BCW in 1996-97

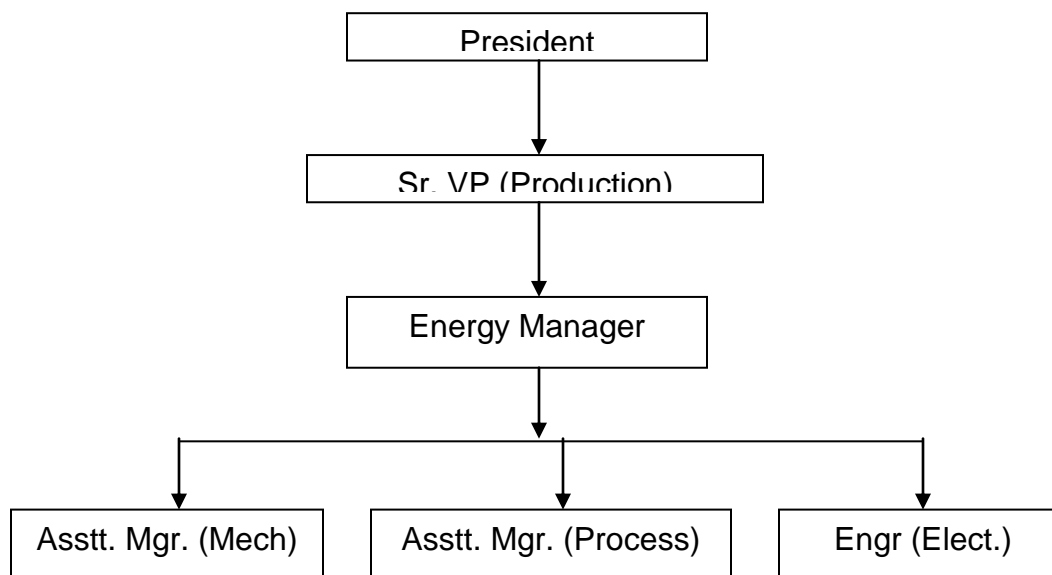
ENERGY MANAGEMENT POLICY:

- Benchmark the best in the industry and set the targets, continuously monitor the energy consumption pattern and take corrective action as may be required within a time frame.
- Improve the process, technology and equipment to reduce energy consumption.
- Make energy conservation a mass movement by creating awareness and encouraging the employees' participation at all levels and recognize such conservation efforts.
- Enhance use of non-conventional and renewable forms of energy, wherever possible.
- Make efforts to eliminate / control idle run of machines / equipment.
- Continuous efforts to utilize waste heat recovery in the plant.

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- Ensure optimum and efficient power generation at Captive Power Plant and distribution.
- Carry out Energy Audit regularly by both internal and external auditors and implement the recommendations within the target dates.

ENERGY CELL STRUCTURE:



Energy Conservation Achievements

Year of commissioning	Project description	Investment incurred on the project (Rs. Lakhs)	Savings achieved (KWH / T Product)	Saving achieved (Rs. Lacs)
2005-06	➤ Installation of 27 MW Thermal Power Plant	8801.00	--	858.00
2006-07	➤ Installation of 27 MW Thermal Power Plant	8801.00	--	2656.00
	➤ Compressed air energy saving system was installed to controlled air & GCT compressor.	3.665	Rs.1.95Lacs/Annum	
	➤ Installation of flyash feeding system in Cement Mill No.1 to produce maximum PPC, thereby reducing power consumption / MT of Cement & CO2 emission.	150	To be worked out.	
2007-08	NIL			

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Energy Conservation Plans and Targets

Energy Conservation Measures (Planned)	Anticipated savings		Approx. investment (Rs. lakhs)	Project Commencement & Completion year
	Energy Value (specify units)	Rs. Lakhs / annum		
Major modification of pyro-processing and clinker cooler is being considered to increase kiln output to 1500TPD of Kiln I&2 by installing new VRM for raw grinding, new VRM for coal grinding, modification of clinker cooler & clinker transport system, modification of preheater cyclone, modification of Kiln Feed System.	--	--	--	2007-2008.
Provision for Process Optimization package for kiln & raw mill.	--	--	21.00	2008-2009

Environment & Safety

Number of activities on safety awareness, health checkup of all employees is being carried.

Safety

In order to have control overall accidents and serious / fatal accidents within the plants, the each and every employees of the organization is familiar with the thinking and objectives of the organization and support the safety programme.

To prevent accident, we have included the safety programme like investigation & analysis of all serious and fatal accidents, recommendations / remedial measures to prevent similar accidents and we also included the near miss situation / accidents in our safety programme.

The regular safety inspection is being conducted in the plant to identify unsafe conditions and unsafe practices, which lead to accidents. Awareness and training programmes are being conducted to develop correct attitudes towards safety.

A safety booklet in Hindi was published giving information of safety rules and regulation and distributed to the all employees including the contractors' workmen.

System, Methods and Instructions has been prepared for the safety related activities in the plants. Maintaining all statutory requirements as per The Factories Act Fire hydrant system, inert gas system, alarm system etc has been provided in the plants.

As a part of regular activity safety department organized various competitions like slogan, poster, declamation etc. with regards to safety for employees. Safety week and safety day are celebrated with great zeal. Several employees are awarded on the occasion.

Environment

External environment audits through certifying agencies were conducted and various environmental initiatives including environmental monitoring were implemented to maintain the ecological balance in and around the plant & mining premises. The statutory requirements relating to various environmental legislations and environment protection were duly compiled with, beside several voluntary initiatives such as background concentration assessment. Water management studies of the district and mass environmental awareness programmes are being conducted