

## **CHUNAR CEMENT FACTORY**

**Distt. Mirzapur (Uttar Pradesh)**

### **Unit Profile**

Chunar Cement Factory, Unit of U.P Cement Cooperation, was started in the year 1982 with cement production capacity of 1.6 Million Ton of slag Cement per annum. The Factory was stopped in the year 1999 due to some technical problem. The factory remained stopped up to 2006. Thereafter Jaypee Group, " an infrastructure conglomerate with diverse business interests ranging from Engineering & Construction Cement, Private Hydropower, Hospitality, Information Technology and Real Estate Development to expressways and Highways.", have acquired the assets of U.P. State Cement Corporation Ltd. (in Liquidation) through a competitive bidding process by the official liquidator for Uttar Pradesh and Uttara Khand. The project has been named as UP Cement Plant and its factories are Dalla Cement Factory, Chunar Cement Factory and Churk Industrial Complex.



Having taken over and to restart the Chunar Cement Factory various consent/ Approval from the State and Central Government were taken and unit started on February 23, 2008 and since than various modifications under taken to make the unit energy efficient. Modifications under taken are as under:

Retrofitting of Cement Mills with high efficiency Separator in place of old one for increasing capacity and thereby reducing power consumption in all 6 Cement Mills.

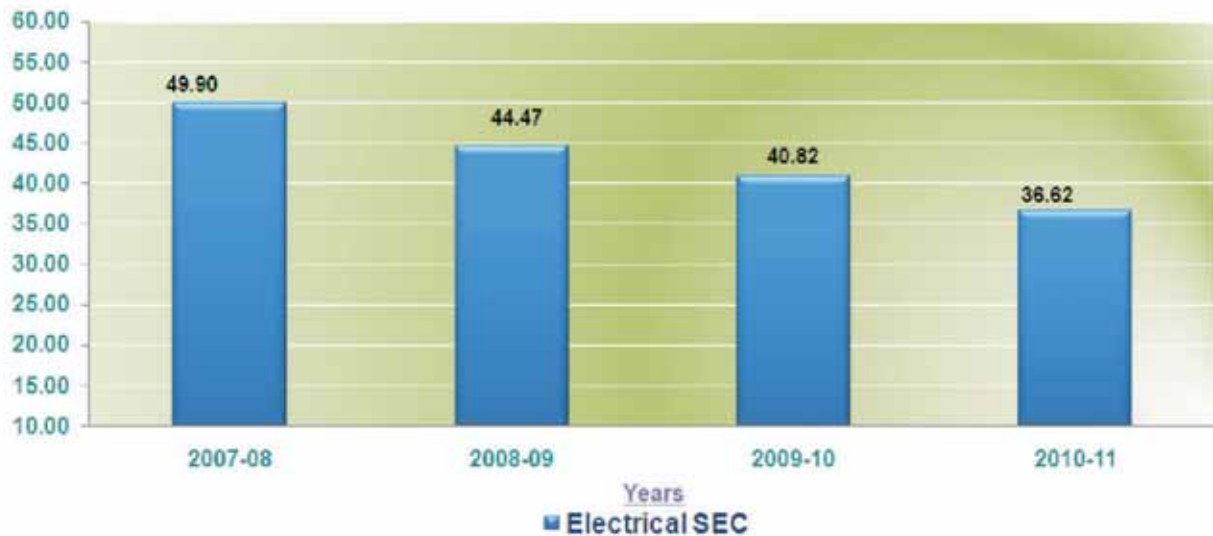
- To avoid power interruption from Grid, Installed a 38 MW Captive Power Plant.
- Replaced low efficiency Mill HT drive by High Efficiency Drive.
- Low efficiency LT drive by High efficiency.
- Retrofitting of Mill Internals for increasing milling efficiency and reducing Power Consumption.
- Installation of energy efficient lighting system.
- Highly efficient Electronic Packers in place of Old Design Packers.
- Optimization of mills for increasing Capacity and reducing power consumption.
- Retrofitting of Bucket elevators by more energy efficient.
- Installation of variable frequency drive on Separators and its Fan drive.
- Installation of High efficiency Fans in place of Low Efficiency.
- Various Interlocking provided in plant for reducing IDLE running hours.

Continuous efforts are being made for reducing Power Consumption.

### **Energy Consumption**

Financial Year	Cement Grinding (MT)	Unit Consumed (Kwh)	Specific Power Consumption KWH/T of Cement Grinding
Year Avg. (07-08)	39066	1949393	49.90
Year Avg. (08-09)	612812	27251750	44.47
Year Avg. (09-10)	1701961	69482294	40.82
Year Avg.(10-11)	2153577	78853571	36.62

## Electrical SEC Pattern In KWH/MT of Cement



### **Energy Conservation Measures at Chunar Cement Factory:**

Plant has carried out following Energy Conservation Measures at our Plant which has resulted in reduction of Electrical SEC.

Up gradation of cement mill No. 3,4,5,6 to increase the productivity from 45 to 72 TPH

- i) Feeding System with Weigh Feeders.
- ii) Flyash unloading System with truck, tippler.
- iii) Flyash Feeding with solid flow meter at Mill inlet and outlet.
- iv) Step & Classifying Liners with controlled flow diaphragm in the Mills.
- v) High efficiency separator with new high efficiency fan.
- vi) New Bag filter installed.

From above said Energy Conservation Measures Electrical SEC reduced from 40.82 to 36.62 Kwh/MT of Cement.

**Investment:** Rs.1150 Lakh

#### **Benefits:**

Power Saving of about 4.2 kWh/MT of Cement and Rs. 470 Lakh in terms of rupees and Productivity increased from 45 TPH to 72 TPH and Rs. 882 Lakh saved as productivity increases.

**Payback Period:** 1.3 Yrs.

## *Energy Policy*

# **JAIPRAKASH ASSOCIATES LIMITED (CEMENT DIVISION) CHUNAR CEMENT FACTORY**

## **ENERGY POLICY**

While ensuring continual efforts for the manufacture of quality cement company also strive to achieve business excellence through responsible and efficient use of Energy – both Thermal & Electrical to :-

1. Have achieve excellence in performance in the production of cement as enshrined in “[Indradhanush](#)”- The Jaypee Culture
2. Reduce specific energy consumption wherever possible to reduce wastage of energy and fissile fuels.
3. Reduce Green house gas (GHG) emission for better sustainability.

**“SAVE ENERGY TO BE LEAN AND GREEN”**