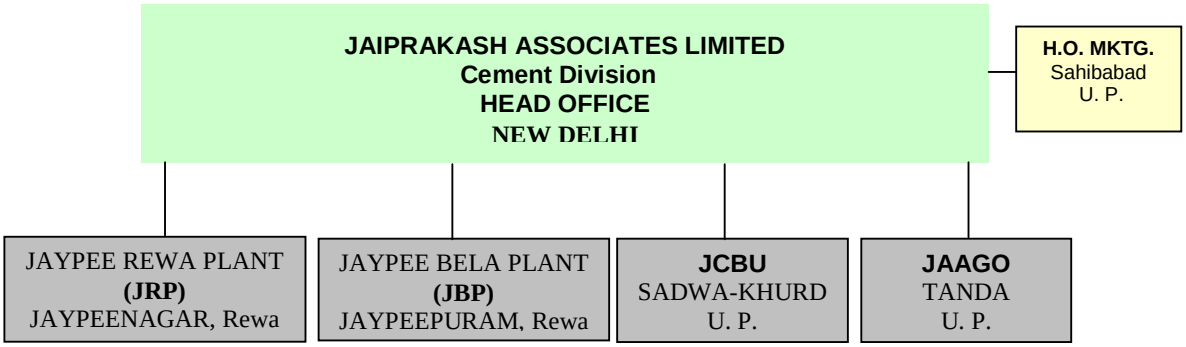
ORGANIZATIONAL OVERVIEW :

Jaiprakash Associates Ltd. (JAL) is the flagship company of the Jaypee Group, one of the largest business conglomerates of North India with annual revenue of over Rs. 3578 Crores. Starting with a humble beginning in 1979 with construction activities, getting into cement manufacturing was only a logical and natural diversification for the Group in the year 1986. Today with the work force of more than 50,000 committed professional manpower and presence in almost all States of North India and countries like Nepal, Bhutan, etc., the Jaypee Group has diversified interests with the motto of building the nation in activities such as Civil Engineering Construction, Hydro Power Projects, Cement manufacturing, Hospitality & Tourism, Information Technology and Education, etc. **JAL has 2 Divisions: (i) Construction, and (ii) Cement.** JAL-Cement Division *(Jaypee Cement)* today is the market leader in central zone of India; and, on all India basis, it is one of the largest player having around 5% share of the total Cement Market of the country. Such coveted position has been achieved through utmost commitment to quality and excellence in all facets of our business management. JAL-Cement Division has been certified for the internationally acclaimed ISO 9001: 2000 Certificate, which further shows its commitment towards achieving total customer satisfaction and overall excellence. As of now, the JAL-Cement Division has 4 plants in operation, strategically situated near to either source of lime, or, source of fly ash – a significant factor determining health and logistics of the organization. Its organizational overview is presented in Exhibit: O-1.

Exhibit: O.1 Organizational Overview of JAL-Cement



PRODUCTION FACILITIES :

JRP is located at 14 km from Rewa city of Madhya Pradesh at Jaypee Nagar; and JBP is situated at Jaypee Puram within vicinity of 5 km. The first line of production having capacity of 1 MTA, Jaypee Rewa Plant was commissioned on 02.12.1986 and 2nd line of production having a capacity of 1.5 MTA was commissioned on 10.01.1992 at JRP. The Jaypee Bela Plant, the 2nd unit of JAL-Cement Division, which is having a production capacity of 1.5 MTA was commissioned on 21.10.1996. The 1st line of production i.e. Unit-I has been upgraded for better energy efficiency and enhanced production of 4500 TPD clinker, and was started on 05.09.2004 after upgradation. For better economy and to encash market opportunities, Jaypee Cement Grinding unit (JCGU) of 0.6 MTA capacity was commissioned in December, 2002 at the Vill: Sadwa-Khurd, Dist. Allahabad, (UP). This is situated on Allahabd – Rewa road at a distance of 28 KM from Allahabad. The latest addition in cement manufacturing capacity came through Jaypee Ayodhya Grinding Operation (JAAGO) having 1.0 MTA capacity. With a view to use locally procured Fly Ash from NTPC-Tanda so as to save on logistics cost and support environmental causes, this plant was commissioned in August, 2004 at Tanda in U.P. As a result of commitment of management, team support and expertise in project management, all these projects were executed and commissioned in record time.

Power is one major input, and its uninterrupted availability at economical cost is a critical success factor for a cement manufacturing plant. Strategically, thus, we have set up our own captive power plants (CPP) to support our cement production process. The 1st CPP - 25 MW Thermal Plant was commissioned at JRP in November, 2003. Another, 25 MW Thermal Plant (CPP-II) was commissioned at JBP in November, 2004. One more 38.5 MW Thermal Power Plant (CPP-III) was commissioned at JRP complex in August, 2006. With the addition of three thermal power plants, the energy cost per tonne of cement has reduced considerably. Another major input for cement manufacturing and success in the market place is availability of good quality lime in high volumes. We have total mining lease of 14.67 Sq. KM. with the three captive limestone mines in the name and style of Naubasta limestone mine, Jaypee limestone mine and Bankuiyan limestone mine situated at a distance of 4 to 5 km. apart from each other. The Naubasta limestone mines cater to requirements of two plants at Jaypee Rewa Plant where as the Jaypee limestone mine mainly cater to Jaypee Bela Plant. The mining operations are carried at JAL-Cement Division using advanced technology and with utmost care to the environment.

Exhibit: O-2 Energy Conservation & Pollution Control	
Energy Conservation Measures	**Pollution Control measures**
• Single stage rotary impactor for limestone crushing. • Vertical roller mills for raw meal and coal grinding • 6 Stage preheater rotary kiln with precalciner, in the first unit at JRP • 5 Stage preheater rotary kiln with precalciner, in the second unit at JRP • 6 Stage preheater rotary kiln with Precalciner in JBP.	• High efficiency electrostatic precipitators in both the lines for major equipment like vertical roller mills for raw meal grinding & Bag House for cement mills at JRP and at JBP; Bag House for vertical roller mill for raw meal grinding & ESP for cement mills. • Electrostatic Precipitator for cooler dedusting. • Bag filters and ESP for the coal mill in both the units • Electronic Rotary packers for packing cement in bags. • Reverse air jet cleaning type bag filters for auxiliaries. • Unit type bag filters at transfer points of belt conveyors

Our cement manufacturing process is fully automated. Field Instruments installed at different locations are to provide data to control room operator through DCS for the purpose of monitoring of the process. Each of the equipments, right from limestone crushing to cement grinding is operated from Central Control Room (CCR). The operating parameters of each equipment are defined in the computer and the operators at CCR run the plant based on these parameters for optimal production. The status of the health of the equipments is also monitored by CCR. In addition to the operation of the plant, the CCR helps in carrying out various tests pertaining to process parameters, analyzing the power consumption, gas flow analysis and leakages for the purpose of optimal production at low cost. The units at JRP and JBP are most modern plants in the country with IT-enabled systems like Computer Aided Deposit Evaluation, State-of-the-art computer based Online Analyzers, Computerized process control systems, Computer aided maintenance management system, etc. Selection of machinery from the manufacturers of world repute, association of the best consultants, and extent of sophistication and modernity incorporated in the plants, reflect the concern of the management towards customer requirements. As far as quality is concerned, while everything possible is being done to ensure adherence to relevant standards in the overall interest of the ultimate consumers of cement, the Company has also focused its attention in the areas of energy conservation and pollution control. Adequate and advanced measures have been adopted by choosing energy efficient and less polluting equipments and appropriate equipments and machineries – as mentioned in Exhibit: O-2.

PRODUCTS, MARKETS AND CUSTOMERS

Exhibit: O-3 Product Range (Cement)	
Type - Grade	**Brand Name**
• OPC-53 • OPC-43 • OPC-33 • OPC - IRS T-40/53S • PPC – BUNIYAD • PPC – BULAND • PPC	• **SUPER PLUS** • **TIGER** • **BUNIYAD** • **BULAND**

Our main product is cement. Clinker is the intermediate product, which after further value addition is converted into cement. Cement is produced of different grades as per customer needs and consumption pattern in the market (Exhibit: O-3). To create differentiation in consumers / customers mind, and to position uniquely in the market, we have consistently built brands of repute. This has immensely helped us in creating premium image in the market place. Our customers are both Institutional (*builders, PSUs, Government Offices, Projects in private / public sectors, etc*.) and Individual Consumers (*majority of revenue comes from this segment*). Due to less realization, volume of clinker sold is less, and it is supplied mainly to Institutional Customers (cement manufacturing units). Cement is sold to Institutional Customers directly either from dumps or from plants. To End Users (*individual consumers*), cement is sold through channel partners (*Sales Promoters, Stockists, Dealers*). Masons are critical element in our marketing mix, because they are one of the major ***influencers*** in decision-making process of consumers. Hence, apart from educating (*product training, policy awareness, etc*.) and building relationship with our channel partners, we focus our such marketing initiatives on masons as well. Another important dimension in cement marketing is the concept of “Natural Marketing Zone” (NMZ). Since cement is a bulk item, its transportation / freight cost is a major component of total cost, hence having a major impact on market price. To remain competitive on price front, it is more prudent to choose “markets that are near to supply centers” (*that explains our new set ups at Tanda and Sadwa-Khurd*). Such markets are called NMZ. Our NMZ is depicted in Exhibit: O-4.

Marketing department covers the placement of product in the market, providing advertisement & promotion support to create customer pull and effecting the realization of the sales proceeds. Planning, budgeting, advertising & allocation process is centralized at the Head Office; the implementation of these and Sales management is the responsibility of the Regional Marketing Offices (RMOs). RMOs control the overall sales and allied advertising activities and is also responsible for development of sales network. Customer relationship management is a critical success factor in cement business which is highly competitive. People from top to bottom have been trained and sensitized to forge better relationships with customers. We regularly conduct Customer Perception & Satisfaction Measurement surveys to align ourselves with the needs and expectations of our customers and the market realities (competition, trade dynamics, etc.).

LEADERSHIP & PEOPLE

The top leadership is represented by Executive Chairman, DIC, COO, supported by many other Directors and Head of Groups (HOGs), working under overall guidance of our Group Chairman. We have implemented systematic approaches towards responsibilities, delegation and empowerment. We have a competent team of professionals, graduates and skilled / semi-skilled workers, acquired, developed and retained in a systematic manner. We also have contract workers working with us who are equally cared for by us. The Exhibit: O-5 gives details of the manpower strength of our organization. We regularly conduct Employee Satisfaction Measurement surveys to align our policies, strategies and HRM approaches with the needs and expectations of our employees. The team work and dedication of our competent employees, empowering vision, energizing work environment and dynamic leadership have been maintaining the momentum set two decades ago, and we are determined to reach further milestones in future.

Exhibit: O-5 Manpower at various plants / offices of JAL-Cement Division

S.N.	Plant / Area	Plant			Non-Plant			Grand Total
		JAL	Out Sourced	**Total**	JAL	Out Sourced	**Total**	
1	JAYPEE REWA PLANT	672	1080	**1752**	448	1130	**1578**	**3330**
2	JAYPEE BELA PLANT	256	819	**1075**	97	630	**727**	**1802**
4	CPP-I	65	34	**99**	0	0	**0**	**99**
5	CPP-II	57	47	**104**	0	0	**0**	**104**
6	CPP-III	12	13	**25**	0	0	**0**	**25**
6	JCBU	18	70	**88**	13	146	**159**	**247**
7	JAAGO, TANDA	38	190	**228**	16	185	**201**	**429**
TOTAL		**1118**	**2253**	**3371**	**574**	**2091**	**2665**	**6036**

SERVING COMMUNITY / SOCIETY

We are a socially responsible corporate, and are sensitized about our social responsibilities. The company has set up a philanthropic trust "***Jaiprakash Sewa Sansthan*** (JSS)" for social upliftment of poorest of the poor through the Comprehensive Rural Development Plan (CRDP). Total 18 neighboring villages have been adopted for bringing about socio-economic development in the lives of the residents by designing and implementing a well planned CRDP programmes / initiatives, e.g., education, health care, animal care, drinking water and roads, community infrastructures, etc.

(i) Unit Profile :

JRP is located at 14 km. From Rewa city of Madhya Pradesh at J.P. Nagar. The first line of production having capacity of 1 million tonne per annum (MTPA) was commissioned on 02.12.1986 .The 1st line of production i.e. U-I has been upgraded for better energy efficiency and enhanced production of 1.5 MTPA clinker, and was started on 05.09.2004 after upgradation. The second line of production having a capacity of 1.5 MTPA was commissioned in the year 1991. It was then the largest cement manufacturing facility in the country. In house improvements and further modernization have raised the capacity to 5700 TPD and with thus the capacity at JRP will be 3.5 MTPA. J. P. Rewa Plant has set up own captive power plants (CPPs) to support cement production process. The 1st CPP-25 MW thermal power plant was commissioned at JRP in Nov., 2003, another 38.5 MW thermal power plant was commissioned in Aug., 2006. Due to the thermal power plant energy cost per tonne of cement has reduced considerably.

JRP has total mining lease of 470.94 sq. km. with the two captive limestone mines in the name and style of Naubasta Limestone mine and Bankuiyan Limestone mine situated at a distance of 4 to 5 km. apart from each other.

Cement manufacturing process is dry process and fully automated. The Plants are most modern using state-of-art technology in the country. With software enabled system like QSO, CADE, state of the art computer based analyzers, computerized process control system and CAMM. Our product ranges are OPC-43, 53, IRS-T40, PPC – Buniyad & PPC - Buland cement. Branded names are Super plus, Buniyad and Buland. J. P. Rewa plant is a socially responsible corporate. The company has set up a philanthropic trust "JAIPRAKASH SEWA SANSTHAN (JSS)" for social upliftment of poorest of the poor through the Comprehensive Rural Development Plan (CRDP).

(ii) Energy Consumption :

Specific Power Consumption Details	Units	2004-05	2005-06	2006-07
Annual Cement Production	LTPA	25.62	28.19	32.07
Total electrical energy consumption per annum	Lakh KWH	2757.37	3119.12	3393.72
Total thermal energy consumption	Million Kcal	1803265	2065398	2169587
Total manufacturing cost in Rs. Lakh	Rs. Lakh	34205.59	38537.04	44516.85
Total energy cost in Rs. Lakh	Rs. Lakh	17883.72	20067.67	22378.41
Energy cost as % of manufacturing cost	%	52.28 %	52.07 %	50.27 %
Specific Power Consumption	kWh/MT Cement	94.3	92.9	89.9

Include information on total energy consumption (i.e. coal, oil, gas, electricity and money value). Information on energy consumption in terms of percentage of manufacturing cost should also be presented. Also, it should highlight the specific energy consumption for the period 2004-2005, 2005-2006 & 2006-2007 Good Computer Graphic Presentation related to Specific Energy Consumption may also be incorporated.

(iii) Energy Conservation Commitment, Policy and Organizational Set up
(Please include a photo copy of unit's Energy Conservation Policy, if decided : **NO**)

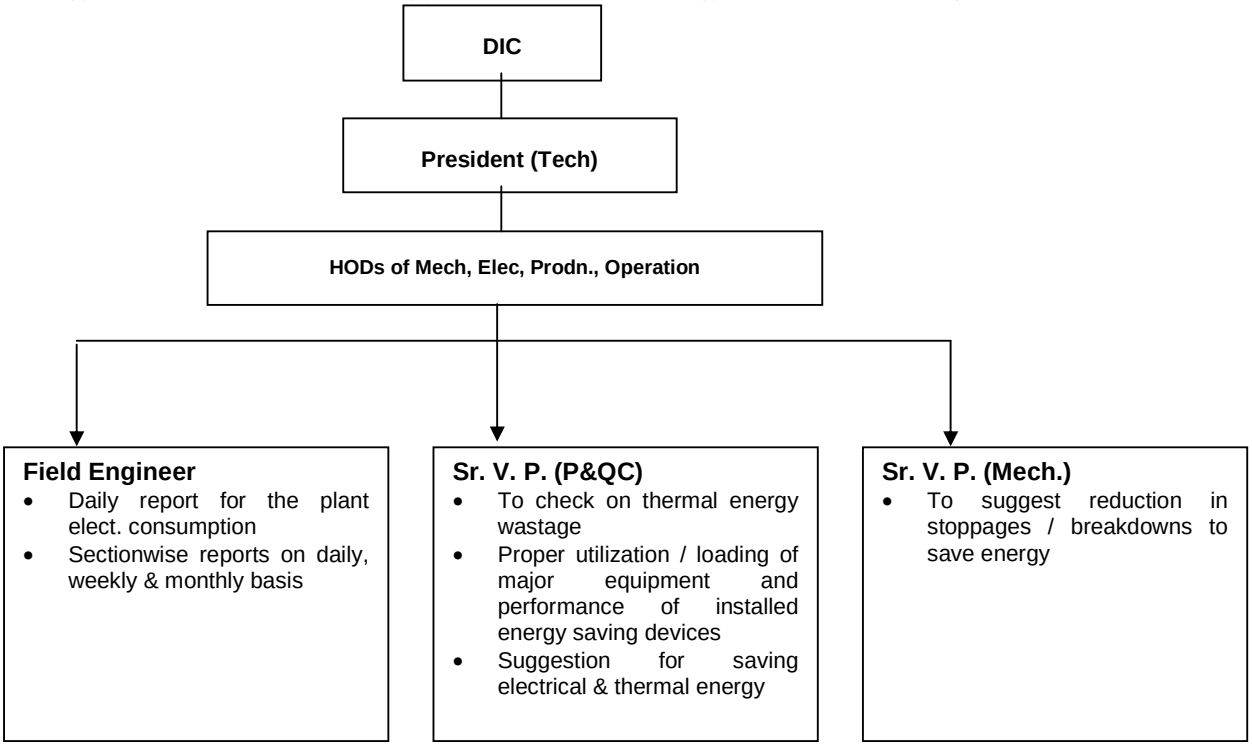
Energy conservation Cell Activities :

A) Electrical energy for each unit and also each section/equipment is calculated on daily basis. This report also gives MTD power consumption for each section.
B) We also generate monthly report highlighting the average consumption, deviation from the target, areas of potential saving.
C) Monthly electrical report is also generated and compared with previous and best month. This indicates the areas where increase has taken place so as to monitor the particular section minutely.
D) Weekly maintenance meeting is held to identify reasons for plant stoppages and means of eliminate them to improve plant availability. This helps in reduction of non-productive machine hours.

Energy Conservation Cell

A separate energy conservation cell is headed by the president(Tech) and has all HODs as member

This cell meets every month to consider plant performance and energy consumption for the previous months. The strategy and decisions and accordingly taken to check on energy waste and increase production.



(iv) Energy Conservation Achievements

Include one paragraph write-up on each major energy conservation project implemented during the year 2006-2007 only.

ENERGY CONSERVATION ACHIEVEMENTS DURING THE YEAR 2006 – 07 AT JAYPEE REWA PLANT

1. <u>JRP : Unit – 1 Raw Mill</u>

a) Reinforced Yoke with larger hub & bearings installed

Before installation

Mill Output	:	308.4 TPH
Mill Sp. Power Cons.	:	23.0 kWh/MT-cement

After Installation

Mill Output	:	311.0 TPH
Mill Sp. Power Cons.	:	22.3 kWh/MT-cement

Savings :

Mill Sp. Power Cons.	:	0.7 kWh/MT-cement
Power Cons. / annum	:	12.86 Lakhs kWh
Amount / annum	:	37.97 Lakhs Rs.

b) New Bypass damper in Raw Mill ESP installed

2. JRP : Unit – 2 Cooler

a) Pocket type cooler grate plates, supplied by FLS, Installed in 1st & 2nd cooler grate

Before installation
Kiln Sp. Heat Cons. : 693 Kcal / Kg-clinker (NCV basis)

After Installation
Kiln Sp. Heat Cons. : 691 Kcal / Kg-clinker (NCV basis)

Savings :
Kiln Sp. Heat Cons. : 02 Kcal / Kg-clinker (NCV basis)
Fuel Cons. / annum : 3405 Million Kcal
Amount / annum : 19.68 Lakhs Rs.

3. Cement Mill No. # 2

a) PTFE filter bags installed in KCP dust collector

Before installation
Mill Output : 99.8 TPH
Mill Sp. Power Cons. : 37.3 kWh/MT-cement

After Installation
Mill Output : 100.1 TPH
Mill Sp. Power Cons. : 37.0 kWh/MT-cement

Savings :
Mill Sp. Power Cons. : 0.25 kWh/MT-cement
Power Cons. / annum : 1.95 Lakhs kWh
Amount / annum : 5.75 Lakhs Rs.

4. Cement Mill No. # 1

a) Central diaphragm replaced with new AIA flow control type diaphragm

b) Mill 1st chamber length reduced by 1.0 meter

IN PPC - GRINDING :

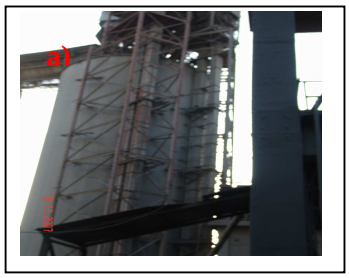
Before installation
Mill Output : 112.1 TPH
Mill Sp. Power Cons. : 35.0 kWh/MT-cement

After Installation
Mill Output : 118.9 TPH
Mill Sp. Power Cons. : 27.5 kWh/MT-cement

Savings :
Mill Sp. Power Cons. : 7.5 kWh/MT-cement
Power Cons. / annum : 59.53 Lakhs kWh
Amount / annum : 175.70 Lakhs Rs.

5. Cement Mill No. # 2

a) Bucket Elevator for cement silo feeding



IN PPC – BUNIYAD GRINDING :

Before installation
Mill Sp. Power Cons. : 29.7 kWh/MT-cement

After Installation
Mill Sp. Power Cons. : 29.2 kWh/MT-cement

Savings :
Mill Sp. Power Cons. : 0.5 kWh/MT-cement
Power Cons. / annum : 3.89 Lakhs kWh
Amount / annum : 11.49 Lakhs Rs.

6. Cement Mill No. # 1, 3 & 4

a) Mill ESP converted in to Bag House in Cement Mill # 1

FOR BAG HOUSE FAN ONLY :

Before installation
Fan Sp. Power Cons. : 0.7 kWh/MT-cement

After Installation
Fan Sp. Power Cons. : 0.3 kWh/MT-cement

Savings :
Fan Sp. Power Cons. : 0.4 kWh/MT-cement
Power Cons. / annum : 9.71 Lakhs kWh
Amount / annum : 28.67 Lakhs Rs.

b) Mill ESP converted in to Bag House in Cement Mill # 3

c) Mill ESP converted in to Bag House in Cement Mill # 4

(v) Energy Conservation Plans and Targets

Detailed Energy Audit has been conducted by CII. Summary of Savings potentials identified & expected benefits for the projects identified by CII & approved by the management is given here.

	Brief Details and Specifications	Investments Required (Rs Lakhs)	Payback Period (Estimated Months)	Expected Benefits (Rs. Lakhs / Year)
Short Term	**1.** Optimise loading of power transformers	-	-	9.85
	2. Optimise the operating voltage of identified areas	-	-	5.61
	3. Reduce leakage level & Optimise operating pressure in packing plant compressor	-	-	3.02
	4. Increase pressure drop across identified bag filter fans (08 nos.)	-	-	2.25
	5. Avoid idle operation of flyash conveying compressor	-	-	1.09
	6. Minimise the voltage drop across the identified feeder	-	-	0.23
	7. Reduce speed of identified silo aeration blower	0.20	2	1.65
	8. Optimise operation of ESP heaters at identified areas.	1.00	2	5.20
	9. Minimise air infiltration in U-I coal mill	1.00	4	3.29
Medium Term	**1.** Avoid damper loss in PH fans of U-I & U-II	-	-	13.50
	2. Reduce speed of silo aeration blower in old packing plant	-	-	1.98
	3. Reduce the speed of the pulley for identified bag filter fans (13 nos.)	1.30	1	21.00
Long Term	**1.** Install correct size pump for mines water pump	4.50	9	5.80
	2. Install correct size pump for cement mill cooling water pump	7.50	7	13.32
	3. Install correct size pump for U-II cooling water pump	7.50	8	10.98
	4. Install automatic star delta star converters for identified lightly loaded motors (07 nos.)	1.40	7	2.50
	5. Install demand side controller for cement mill compressor (02 nos.)	7.50	17	5.38
	6. Replace the identified bag filter fans with new fan of higher efficiency (15 nos.)	43.00	15	34.00
	7. Install automation system for cement mill (for all 04 nos.)	20.00	4	66.82

(vi) Environment and Safety :

Environment : The Jaypee group in general and the cement plant in particular is very concerned for clean and green environment , and its total sustainable development . The group is committed to eco- friendly processing of cement manufacturing from mining to placement of product at users end. The entire manufacturing process is carried out by latest technology with controlled emission meeting the stringent national norms through application of the latest and advanced air pollution control equipments.

Safety : Jaypee Rewa plant has a separate safety department maintains stringent safety standards and ensures that safety measures are being followed strictly. All the provisions enumerated in the factory act and factory rules also complied with. Unit has a central control room which functions round the clock with junior management level officers as in charge who will intimate top management, co - ordinate and organize necessary help required from outside agencies as well as in- house in case of emergency. Jaypee Rewa Plant has a well-equipped modern hospital with 16 beds managed by the doctors round the clock. An ambulance is also available for any emergency.