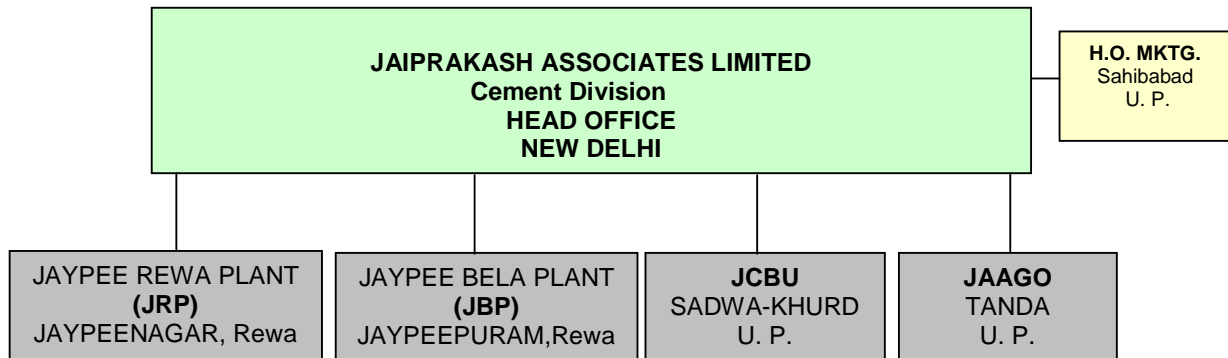


ANNEXURE – B – 1

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. 4274 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-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, ISO 14001 & OHSAS 18001 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. The 2nd line of production at Jaypee Rewa Plant i.e. Unit-II has been upgraded for a production of 5700 TPD of clinker. Jaypee Bela Plant also has been upgraded for a production of 6700 TPD of clinker. With this the present capacity at JRP is 3.5 MTPA of cement and at JBP is 2.5 MTPA of cement.

For better economy and to en-cash market opportunities, Jaypee Cement Blending unit (JCBU) of 0.6 MTA capacity (0.2 MTPA incremental) was commissioned in December, 2002 at the Vill: Sadwa-Khurd, Dist. Allahabad, (UP). This is situated on Allahabad – 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.

JRP, JBP, JAAGO and JCBU put together totals to a capacity of 7.2 MTPA of cement.

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, 27 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 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
<ul style="list-style-type: none">• 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.• Modern Duoflex low Nox burner for JRP & JBP kilns along with IKN KIDS and CFG coolers at JRP & CIS MFR cooler at JBP.• Flyash dryers installed at JRP and JBP are unique features of these plants.• Dry flyash handling along with Dense Phase Conveying System for optimum dosing.• Vertical roller mill for cement grinding at JAAGO.• Unique blending system at JCBU.	<ul style="list-style-type: none">• High efficiency electrostatic precipitators and Bag houses for major equipments like Vertical Roller mills and Ball mills for raw meal and cement grinding at JRP, JBP & JAAGO.• 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.• Efficient STPs along with tertiary treatment system to take care of domestic water waste.

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
<ul style="list-style-type: none">• OPC-53• OPC-43• OPC - IRS T-40/53S• PPC – BUNIYAD• PPC – BULAND	<ul style="list-style-type: none">• TIGER• SUPER PLUS • 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, MD, 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*	674	810	1484	719	974	1693	3177
2	JAYPEE BELA PLANT	261	378	639	152	395	547	1186
4	CPP-I	82	40	122	1	0	1	123
5	CPP-II	47	47	94	0	0	0	94
6	CPP-III	13	16	29	0	0	0	29
6	JCBU	13	45	58	14	43	57	115
7	JAAGO, TANDA	33	119	152	17	83	100	252
TOTAL		1123	1455	2578	903	1495	2398	4976

* Including Nigrie, MPJML, Guna, Allahabad, Patna, Others Filed Staff, Delhi, GACL, HEW & Panipat.

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 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	2005-06	2006-07	2007-08
Annual Cement Production	LTPA	28.19	32.07	32.53
Total electrical energy consumption per annum	Lakh KWH	3119.12	3393.72	3381.90
Total thermal energy consumption	Million Kcal	2065398	2169587	2184245
Total manufacturing cost in Rs. Lakh	Rs. Lakh	38537.04	44516.85	45939.29
Total energy cost in Rs. Lakh	Rs. Lakh	20067.67	22378.41	22490.67
Energy cost as % of manufacturing cost	%	52.07 %	50.27 %	48.96 %
Specific Power Consumption	kWh/MT Cement	92.9	89.9	88.1

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 2005-2006, 2006-2007 & 2007-2008 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**)

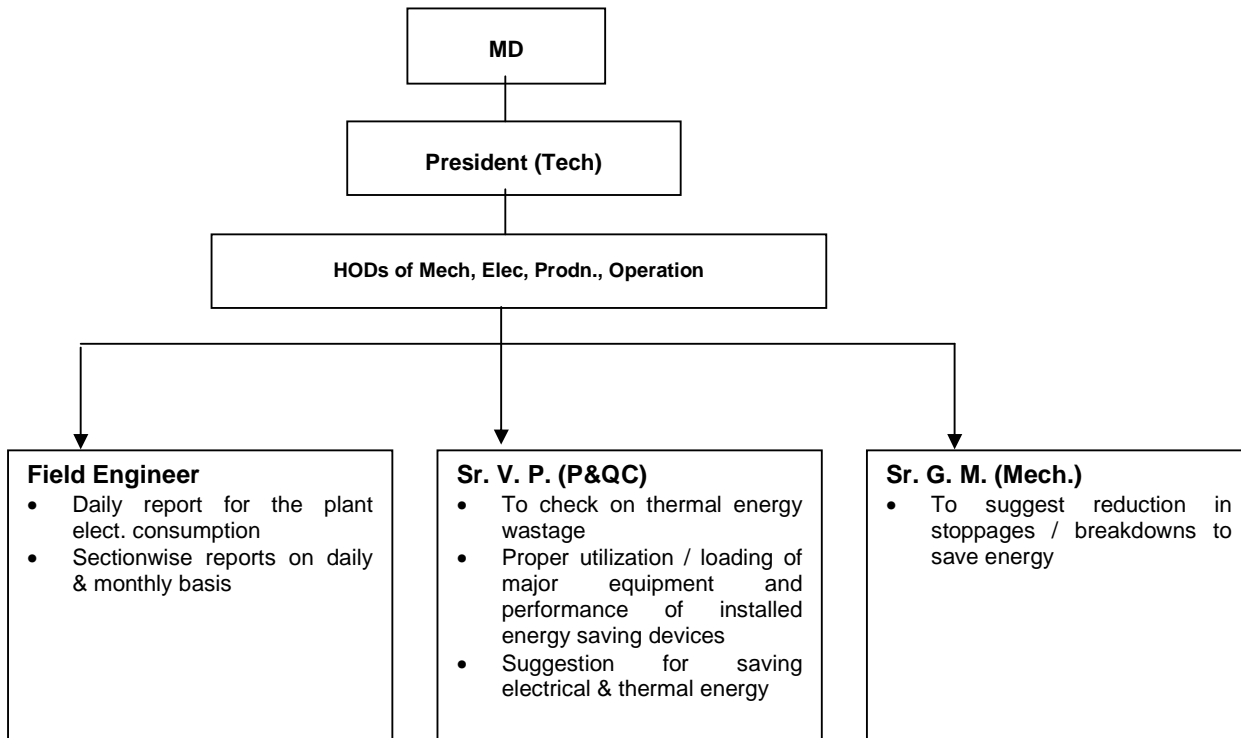
Energy conservation Cell Activities :

- 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)** Monthly 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 2007-2008 only.

ENERGY CONSERVATION ACHIEVEMENTS DURING THE YEAR 2007 – 08 AT JAYPEE REWA PLANT**1. Optimise loading of 01 no. main power transformer of 20/25 MVA**

Before Optimization	
Power Cons. On No Load	: 25 kWh / Hr
After Optimization	
Power Cons. By Switching Off the Transformer	: 0 kWh / Hr
Savings :	
Power Cons.	: 25 kWh / Hr
Power Cons. / annum	: 2.19 Lakhs kWh
Amount / annum	: 7.14 Lakhs Rs.

2. Optimise the operating voltage of 06 nos. distribution transformers at Crusher, LC-2 & LC-3

Before Optimization	
Voltage running	: 433 volts
After Optimization	
Voltage running	: 422 volts
Savings :	
Power Cons. / annum	: 2.68 Lakhs kWh
Amount / annum	: 8.75 Lakhs Rs.

3. Reduced leakage level and optimise operating pressure in packing plant compressor

Before Optimization	
Load / Unload Pressure Setting	: 6.0 / 7.0 KSC
After Optimization	
Load / Unload Pressure Setting	: 5.5 / 6.0 KSC
Savings :	
Power Cons. / annum	: 1.34 Lakhs kWh
Amount / annum	: 4.38 Lakhs Rs.

4. Increase pressure drop up to optimum level in 03 nos. bag filters (431BF1, K12BF1 & 511FN8)

Before Optimization	Pressure Drop (mmWG)	Power Cons. (kWh/Hr)
431 BF-1	: 56	12.1
K12BF-1	: 30	16.2
511FN-8	: 86	9.3
After Optimization		
431 BF-1	: 101	8.6
K12BF-1	: 85	13.0
511FN-8	: 130	4.2
Savings :		
Power Cons. / annum	: 0.94 Lakhs kWh	
Amount / annum	: 3.08 Lakhs Rs.	

5. **Avoid idle operation of flyash conveying compressor**

Action Taken :

A work instruction issued to all concerned persons to avoid idle running by better communication on time.

Savings :

Power Cons. / annum : 0.48 Lakhs kWh
Amount / annum : 1.58 Lakhs Rs.

6. **Minimise the voltage drop across the MCC-11 feeder**

Action Taken :

Capacitor bank of 2 x 60 kVAr connected to MCC-11 to improve the power factor from 0.53 to 0.90.

Savings :

Power Cons. / annum : 0.10 Lakhs kWh
Amount / annum : 0.33 Lakhs Rs.

7. **Optimize operation of FAD ESP heaters**

Action Taken :

New thermostat has been arranged in-house for insulator heater with no new investment.

Savings :

Power Cons. / annum : 0.71 Lakhs kWh
Amount / annum : 2.30 Lakhs Rs.

8. **Minimize air infiltration in JRP : U – 1 coal mill circuit**

Action Taken :

Identified leakage points arrested during plant shutdown and observed 10 % reduction in false air entry in to the system.

Savings :

Power Cons. / annum : 1.46 Lakhs kWh
Amount / annum : 4.77 Lakhs Rs.

9. **Avoid damper loss by correction / maintenance of JRP : U – 1 & U – 2 both PH (KS + CS) Fans**

Action Taken :

JRP : U – 1 & U – 2 both PH (KS +CS) Fans dampers checked & corrected during Plant shutdown and observed reduction in pressure drop as below :-

	Pressure drop across Damper (mmWG)	
	Before Correction	After Correction
JRP : U – 1 PH KS Fan	40	12.5
JRP : U – 1 PH CS Fan	25	7.5
JRP : U – 2 PH KS Fan	22	15.8
JRP : U – 2 PH CS Fan	33	15.9

Savings :

Power Cons. / annum : 6.88 Lakhs kWh
Amount / annum : 22.44 Lakhs Rs.

10. Reduce speed of silo aeration blower in old packing plant

Action Taken :

Blower replaced with readily (In-house) available lower capacity blower.

Savings :

Power Cons. / annum : 0.72 Lakhs kWh

Amount / annum : 2.35 Lakhs Rs.

11. JRP : U – 1 : Demand side controller installed for CPT – Compressor (02 nos.)

AND

12. Demand side controller installed for CPT – Old compressor for cement mills

Action Taken :

New Demand Side Controller of M/s Godrej & Boyce Mfg Co Ltd. installed.

Investment : Rs. 6.40 Lakhs

Savings :

Power Cons. / annum : 1.16 Lakhs kWh

Amount / annum : 3.79 Lakhs Rs.

13. JRP : U – 1 : DBC drag chain dedusting pipe line connected to cooler ESP and it's bag filter & fan was stopped

Action Taken :

JRP : U-1 : DBC drag chain dedusting pipe line connected to cooler ESP and it's bag filter & fan was stopped.

Savings :

Power Cons. / annum : 7.12 Lakhs kWh

Amount / annum : 23.22 Lakhs Rs.

14. Clinker yard tunnel Pan conveyor dedusting BF Fan (511 FN2) pulley replaced to reduce BF fan speed, to avoid damper losses

Action Taken :

Clinker yard tunnel Pan conveyor dedusting BF Fan (511 FN2) pulley replaced to reduce BF fan speed, to avoid damper losses.

	<u>Before</u>	<u>After</u>
Pressure Drop Across Damper (mmWG) :	300	4
Fan Speed (RPM) :	N.A.	N.A.
Damper Opening (%) :	50	100
Power Cons. (kWh / Hr) :	27.6	19.0

Savings :

Power Cons. / annum : 0.69 Lakhs kWh

Amount / annum : 2.24 Lakhs Rs.

15. CM-4 hopper top BF Fan (511 FN8) pulley replaced to reduce BF fan speed, to avoid damper losses**Action Taken :**

CM-4 hopper top BF Fan (511 FN8) pulley replaced to reduce BF fan speed, to avoid damper losses.

	<u>Before</u>	<u>After</u>
Pressure Drop Across Damper (mmWG) :	165	5
Fan Speed (RPM) :	2100	1512
Damper Opening (%) :	55	100
Power Cons. (kWh / Hr) :	10.3	4.2

Savings :

Power Cons. / annum : 0.49 Lakhs kWh
Amount / annum : 1.59 Lakhs Rs.

16. CM-3 Reject BE BF Fan (553 FN7) pulley replaced to reduce BF fan speed, to avoid damper losses**Action Taken :**

CM-3 Reject BE BF Fan (553 FN7) pulley replaced to reduce BF fan speed, to avoid damper losses.

	<u>Before</u>	<u>After</u>
Pressure Drop Across Damper (mmWG) :	35	5
Fan Speed (RPM) :	N.A.	1118
Damper Opening (%) :	80	100
Power Cons. (kWh / Hr) :	18.0	8.0

Savings :

Power Cons. / annum : 0.80 Lakhs kWh
Amount / annum : 2.61 Lakhs Rs.

17. CM-4 Sepol BF Fan (554FN6) pulley replaced to reduce BF fan speed, to avoid damper losses**Action Taken :**

CM-4 Sepol BF Fan (554FN6) pulley replaced to reduce BF fan speed, to avoid damper losses.

	<u>Before</u>	<u>After</u>
Pressure Drop Across Damper (mmWG) :	330	125
Fan Speed (RPM) :	N.A.	1157
Damper Opening (%) :	30	60
Power Cons. (kWh / Hr) :	36.0	28.0

Savings :

Power Cons. / annum : 0.64 Lakhs kWh
Amount / annum : 2.09 Lakhs Rs.

18. Cement Silo-1 top BF (591BF-1) Fan pulley replaced to reduce BF fan speed, to avoid damper losses**Action Taken :**

Cement Silo-1 top BF (591BF-1) Fan pulley replaced to reduce BF fan speed, to avoid damper losses.

	<u>Before</u>	<u>After</u>
Pressure Drop Across Damper (mmWG) :	110	5
Fan Speed (RPM) :	N.A.	N.A.
Damper Opening (%) :	70	100
Power Cons. (kWh / Hr) :	20.0	12.9

Savings :

Power Cons. / annum : 0.56 Lakhs kWh
Amount / annum : 1.84 Lakhs Rs.

19. CM-4 WF BF (534BF1) Fan pulley replaced to reduce BF fan speed, to avoid damper losses**Action Taken :**

CM-4 WF BF (534BF1) Fan pulley replaced to reduce BF fan speed, to avoid damper losses.

	<u>Before</u>	<u>After</u>
Pressure Drop Across Damper (mmWG) :	265	0
Fan Speed (RPM) :	1557	1104
Damper Opening (%) :	50	Damper removed
Power Cons. (kWh / Hr) :	22.0	7.0

Savings :

Power Cons. / annum : 1.20 Lakhs kWh
Amount / annum : 3.91 Lakhs Rs.

20. Cement Silo-2 top BF (592BF-1) Fan stopped, as ventilation of silo was now made with only one BF (592BF-1)**Action Taken :**

Cement Silo-2 top BF (592BF-1) Fan stopped, as ventilation of silo was now made with only one BF (592BF-1).

Savings :

Power Cons. / annum : 2.08 Lakhs kWh
Amount / annum : 6.78 Lakhs Rs.

21. JRP : U-1 : V/F drive installed in 03 nos. cooler fans (471FN9, 471FNE & 471FNF)**Action Taken :**

JRP : U-1 : V/F drive installed in 03 nos. cooler fans (471FN9, 471FNE & 471FNF).

	<u>Before</u>	<u>After</u>
471FN-9:-		
Fan Speed (RPM) :	Full	1333
Damper Opening (%) :	70	100
Power Cons. (kWh / Hr) :	115	81
471FN-E:-		
Fan Speed (RPM) :	Full	1300
Damper Opening (%) :	61	100
Power Cons. (kWh / Hr) :	111	77
471FN-F:-		
Fan Speed (RPM) :	Full	1310
Damper Opening (%) :	62	100
Power Cons. (kWh / Hr) :	96	68

Investment : Rs. 14.73 Lakhs

Savings :

Power Cons. / annum : 0.59 Lakhs kWh
Amount / annum : 1.93 Lakhs Rs.

22. JRP : U-1 : GCT bottom screw conveyor (No. - 46) was replaced with old Enmass Conveyor (spared from U-1 cooler ESP bottom)**Action Taken :**

JRP : U-1 : GCT bottom screw conveyor (No. - 46) was replaced with old Enmass Conveyor (spared from U-1 cooler ESP bottom).

Savings :

Power Cons. / annum : 0.04 Lakhs kWh
Amount / annum : 0.12 Lakhs Rs.

23. JRP : U-2 : New Single DC drive for Kiln installed in-place of twin DC drive

Action Taken :
JRP : U-2 : New Single DC drive for Kiln installed in-place of twin DC drive.

Investment : Rs. 31.00 Lakhs

Savings :
Power Cons. / annum : 1.22 Lakhs kWh
Amount / annum : 3.99 Lakhs Rs.

24. JRP : U-2 : DC drive installed in CID Fan in-place of GRR & AC motor

Action Taken :
JRP : U-2 : Spared DC drive of Kiln Main Drive, installed in CID Fan in-place of GRR & AC motor.

Savings :
Power Cons. / annum : 12.23 Lakhs kWh
Amount / annum : 39.90 Lakhs Rs.

25. Cement Mill # 2 ESP converted to Bag House and ESP Fan replaced with new high efficiency Bag House Fan along with V/F

Action Taken :
Cement Mill # 2 ESP converted to Bag House and ESP Fan replaced with new high efficiency Bag House Fan along with V/F.

Investment : Rs. 42.04 Lakhs

Savings :
Power Cons. / annum : 0.34 Lakhs kWh
Amount / annum : 1.10 Lakhs Rs.

26. Cement Mill # 4, New water spray system of M/s Spraying Systems (I) Pvt. Ltd. with V/F installed for controlling mill outlet temperature

Action Taken :
Cement Mill # 4, New water spray system of M/s Spraying Systems (I) Pvt. Ltd. with V/F installed for controlling mill outlet temperature.

Investment : Rs. 7.31 Lakhs

Savings :
Power Cons. / annum : 0.20 Lakhs kWh
Amount / annum : 0.66 Lakhs Rs.

27. Flyash dryer ESP modified to Precip-Filter i.e. ESP + Bag Filter by M/s Baltec. (ESP last field i.e. 3rd field converted to Bag Filter)

Action Taken :
Flyash dryer ESP modified to Precip-Filter i.e. ESP + Bag Filter by M/s Baltec (ESP last field i.e. 3rd field converted to Bag Filter).

Investment : Rs. 22.07 Lakhs

Savings :
Power Cons. / annum : 0.58 Lakhs kWh
Amount / annum : 1.88 Lakhs Rs.

28. JRP : U-2 : Coal Mill Classifier replaced with new LV classifier & Hot air cyclone dip tube replaced & mill O/L to Cyclone I/L duct replaced

Action Taken :

JRP : U-2 : Coal Mill Classifier replaced with new LV classifier & Hot air cyclone dip tube replaced & mill O/L to Cyclone I/L duct replaced.

Investment : Rs. 40.00 Lakhs

Savings :

Power Cons. / annum : 1.23 Lakhs kWh
Amount / annum : 4.01 Lakhs Rs.

(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)
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. Replace the identified bag filter fans with new fan of higher efficiency (15 nos.)	43.00	15	34.00
	6. 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. Continual improvement is effected through implementation of the coveted ISO 14001 – 2004 Environment Management System for which JAL is certified by the renowned certifying agency Bureau Veritas Certification.

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. Continual improvement is effected through implementation of the coveted OHSAS 18001 – 2007 Occupational Health & Safety Management System for which JAL is certified by the renowned certifying agency Bureau Veritas Certification. Jaypee Cement Complex at Rewa is amongst the first cement companies to volunteer for the Five Star Audit by the British Safety Council in pursuit of the coveted Sword of Honour.

