EXTRACTS FROM ANNUAL REPORTS OF GRASIM INDUSTRIES LIMITED FOR THE FINANCIAL YEARS 2007, 2008 AND 2009 WHICH PERTAIN TO ITS CEMENT BUSINESS CONSTITUTING THE "DEMERGED UNDERTAKING" UNDER THE PROPOSED SCHEME OF ARRANGEMENT BETWEEN ITSELF, SAMRUDDHI CEMENT LIMITED AND THEIR RESPECTIVE SHAREHOLDERS AND CREDITORS

All references to "Grasim", the "Company", "your company" "we", "our", "us" in the relevant annual reports of Grasim Industries Limited are to Grasim Industries Limited. For sake of clarity, the extracts from the relevant annual reports as set out in this document have been modified to the extent of making such terms consistent. Footnotes in this document have been inserted for the sake of clarity and the same do not form part of the relevant annual reports to which the extracts pertain to.

1. ABSTRACT FROM ANNUAL REPORTS FOR FY 09 AND FY 08 OF THE COMPANY RELATING TO THE CEMENT BUSINESS PROPOSED TO BE DEMERGED (THE "CEMENT BUSINESS")[1]:

Rs. in crores

	Particulars	FY09	FY08	FY07
A	**REVENUE**			
	1a. Gross Sales (External)	7880.53	6839.38	5810.08
	1b. Gross Sales (Inter-segment)	1.03	2.20	1.03
	Total Gross Sales	**7881.56**	**6841.58**	**5811.11**
	2a. Other Income	57.73	44.39	40.59
	2b. Unallocated Corporate Other Income			
	Total Other Income	**57.73**	**44.39**	**40.59**
	3. Total Revenue	7939.29	6885.97	5851.70
B	**RESULTS**			
	1. Segment Results (PBIT)	**1630.46**	**1677.64**	**1448.21**
	2. Unallocated Corporate Income/ (Expenses)			
	3. Interest Expenses			
	4. Profit before Exceptional Items and Tax			
	5. Exceptional Items			
	Write back of provision for diminution in value of loan			37.10
	6. Profit before Tax from Ordinary Activities			
	7. Provision for Current Tax			
	8. Deferred Tax			
	9. Net Profit for the Period			
C	**Other Information**			
	1. Segment Assets	**8013.26**	**6586.40**	**3894.38**
	2. Unallocated Corporate Assets			
	3. Total Assets			
	4. Segment Liabilities	**1298.25**	**1127.13**	**817.70**
	5. Unallocated Corporate Liabilities			
	6. Total Liabilities			
	7. Capital Expenditure	**1466.47**	**2462.62**	**1296.87**
	8. Unallocated Corporate Capital Expenditure			
	9. Total Capital Expenditure			
	10. Depreciation and Amortisation	**281.83**	**198.69**	**174.77**
	11. Unallocated Corporate Depreciation and Amortisation			
	12. Total Depreciation and Amortisation			
	13. Significant Non Cash Expenses other than Depreciation and Amortisation			

[1] Note: *Cement business segment includes grey and white cement.*

2. COMPANY'S FINANCIAL HIGHILGHTS – ANNUAL REPORT FY09

Production in the Cement Business increased by a modest 6% at 16.32 Mn. Tons[2] , as new capacities were still under stabilisation. Sales volumes too moved up by 6% at 16.54 Mn. Tons.[3] While average realisations grew by 7%[4], it was unable to keep pace with the unprecedented increase in input cost including the prices of imported coal and petcoke. Operating margins, thus declined from 32% to 27%[5]. Ready Mix Concrete (RMC) volumes expanded by 24%[6] due to the large capacity expansion undertaken in the last fiscal. The performance of White Cement Division has been impressive. Production was higher by 8% at 441,118 tons[7], while sales volumes expanded by 11% at 438,394 tons[8]. Wall care putty recorded a 40%[9] growth in volumes over the previous year.

Financial Highlights – Annual Report FY09

Year	Unit	2008-09	2007-08	2006-07	2005-06	2004-05	2003-04	2002-03	2001-02	2000-01	1999-00
Production											
Grey Cement	Mn. Tonnes	16.32	15.36	14.42	13.83	12.44	11.85	11.09	9.53	9.10	8.40
Ready Mix Concrete	Mn. Cu. Mtrs.	2.43	1.95	1.42	1.07	1.08	0.83	0.61	0.32	0.10	0.07
White Cement	Tonnes	441118	407882	364649	350174	315368	310578	310163	267915	251594	240492
Turnover											
Grey Cement	Mn. Tonnes	16.54	@15.54	@14.52	@`13.99	12.63	11.96	11.16	9.68	9.16	8.42
Ready Mix Concrete	Mn.Cu. Mtrs.	2.43	1.95	1.42	1.07	1.08	0.83	0.61	0.32	0.10	0.07
White Cement	Tonnes	438394	396295	367167	347500	311454	314819	305223	266105	251291	240014

@ Excludes traded volumes with subsidiaries.

3. OUTLOOK FOR CEMENT BUSINESS

Outlook for Cement Business (Source: Annual Report FY09)

The Indian Economy is poised for moderate growth. Cement demand is expected to grow at par with the GDP growth. The uncertain economic environment and its impact on real estate and corporate capex will have a bearing on cement consumption. Further, large infrastructure projects may be hampered due to non-availability of long-term funds. Semi-urban and rural housing, which are not impacted by real estate slowdown and credit crunch, should continue to boost the cement demand.

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[2] Note: *In FY08, production in the Cement Business increased by 7% at 15.36 Mn. Tons. (Reference: Annual report of Grasim for FY 08)*

[3] Note: *In FY08, sales volumes moved up by 7% at 15.54 Mn. Tons (Reference: Annual report of Grasim for FY 08)*

[4] Note: *In FY08, average realisations grew by 11%. (Reference: Annual report of Grasim for FY 08)*

[5] Note: *In FY08, operating margins declined from 33% to 32% (Reference: Annual report of Grasim for FY 08)*

[6] Note: *In FY08, RMC volumes expanded by expanded by 36%. (Reference: Annual report of Grasim for FY 08)*

[7] Note: *In FY08, production was higher by 12% at 407,882 tons (Reference: Annual report of Grasim for FY 08)*

[8] Note: *In FY08, sales volumes expanded by expanded by 8% at 396,295 tons (Reference: Annual report of Grasim for FY 08)*

[9] Note: *In FY08, wall care putty recorded a 59% growth in volumes over the previous year (Reference: Annual report of Grasim for FY 08)*

Large capacity additions, which are likely to be commissioned in FY10, will create short-term surplus capacity in the sector. If the slowdown in the economic growth aggravates the surplus, prices and margins may come under pressure.

The Company has made large investments in capacity build-up, thermal power plants and other efficiency related initiatives in logistic. These will be leveraged to attain cost leadership and grow volumes. The increased captive power availability with the commissioning of power plants and reduction in lead distance with the commissioning of new plants' entire capacity will mitigate the impact of pressure on prices.

Capex Plan FY 09– Cement Business (Source: Annual Report FY 09)

The Company's major projects are nearing completion. At Shambhupura (Rajasthan), one of the two cement mills was commissioned in the fourth quarter. The second mill at Shambhupura and the split – grinding unit at Aligarh (Uttar Pradesh) are expected to be commissioned in Q1FY10. The clinker production, which had commenced in Q2FY09, has been satisfactorily ramped up. The 3.3 million TPA Clinkerisation Unit at Kotputli (Rajasthan) was commissioned in March 2009. The grinding facility at Kotputli is expected to go on stream in H1FY10. The grinding unit at Dadri (Uttar Pradesh), with a capacity of 1.3 million TPA, also became operational during the year.

Thermal power plants with a total capacity of 144 MW have been commissioned at four locations, including a unit of 23 MW at Kotputli which was commissioned in April 2009. With this, the total thermal power generation capacity stands enhanced at 268 MW. This will meet around 80% of the business' total power requirement.

During the year, a total amount of Rs.1,467 Crores was spent on capex. The Company plans to invest over Rs.1,300 Crores on capex in FY10 for the completion of the existing projects and modernisation.

Capex Plan FY 08– Cement Business (Source: Annual Report FY 08)

Debottlenecking at existing locations led to an increase in the capacity by 2.40 million TPA during the year. A cement grinding unit of 1.3 million TPA at Panipat in Haryana was also commissioned during the year. The progress on various projects has been satisfactory. The expansion at Shambhupura plant in Rajasthan (4.4 million TPA) will be operational in H1FY09. The Kotputli plant in Rajasthan (4.5 million TPA) is expected to go on stream in Q3FY09.

A thermal power plant of 23 MW was commissioned at Jawad (M.P.) in March 08. Thermal power plants with capacity of 144 MW are under construction at various locations to reduce dependence on grid and DG power.

All the power plants are likely to get commissioned in a phased manner in FY09. Upon commissioning, the total power generation capacity will be 268 MW, which will meet around 80% of the total power requirement.

RMC network is being expanded rapidly and the number of RMC plants will increase from 31 at the end of FY08 to 55 by the end of FY09.

A total capex plan of over Rs.5,100 Crores on capacity expansions, captive thermal power plants, RMCs, modernisation, infrastructure build up etc. is under implementation, out of which Rs.2,900 Crores have already been spent. The balance amount will be spent over the next two years.

Capex Plan FY 07– Cement Business (Source: Annual Report FY 07)

The Company's expansion plans at Shambhupura and Kotputli in Rajasthan are progressing as scheduled. The plants are likely to be commissioned by Q4FY08 and Q1FY09 respectively. Both the plants will also have captive thermal power plants. The Company has

envisaged a total capital outlay of Rs.3,458 Crores on capacity expansion, modernisation, de-bottlenecking, setting up of grinding unit at Dadri, RMCs and captive power plants.

4. RISKS AND CONCERNS (Source: Annual Report FY09)

RISKS AND CONCERNS

The Company has a comprehensive risk management policy. The risk management *inter alia* provides for review of the risk assessment and mitigation procedure, laying down procedure to inform/report the Board in the matter and for periodical review of the procedure to ensure that executive management controls the risks through a properly defined framework.

During the year, the Audit Committee, which has been designated by the Board for the purpose, reviewed the adequacy of the risk management framework of the Company, the key risks associated with the businesses of the Company and the measures and steps in place to mitigate the same.

Some of the key risks affecting the Company are illustrated below:

Economic Risk

Due to the opening of world trade and diminishing tariffs, the Company is faced with the threat of pressure on margins on products. To counter these, the Company stepped up its focus on value added products by upgrading and expanding manufacturing capacities and increasing R&D. In addition, structural cost optimisation and cost control measures have been initiated.

Competitor Risk

The market is highly competitive with the elimination of fiscal barriers and inroads of large corporates into the country with inorganic growth strategies. The Company continues to focus on increasing its market share and taking marketing initiatives that help customers in making informed decisions.

Project Execution Risk

The Company is in the process of setting up cement capacities and captive thermal power plants. The project execution is largely dependent upon land purchase, project management skills, timely delivery by the equipment suppliers and adherence to schedule by civil contractors. Any delay in project implementation will impact revenues and profit for that period. The Company is continuously reviewing the project execution to ensure that the implementation schedules are adhered.

Human Resource Risk

The Company's ability to deliver value also depends on its ability to attract, train, motivate, empower and retain the best professional talents. These abilities have to be developed across Company's rapidly expanding operations. There is significant competition from emerging service sectors, which poses inherent risks associated with the ability to hire and retain skilled and experienced professionals. The Company continuously benchmarks HR policies and practices with the best in the industry and carries out necessary improvements to attract and retain best talent and build intellectual capital.

Foreign Exchange Risk

The Company's policy is to hedge its long-term foreign exchange risk as well as short-term exposures within the defined parameters. The long-term foreign exchange liability is fully hedged, and hedges are on held to maturity basis. As imports (including capital goods import) exceeded exports, the Company has suitably hedged the differential short-term exposure from time to time to appropriately manage the currency risk.

Interest Rate Risk

The Company is exposed to interest rate fluctuations on its borrowings. It uses a judicious mix of fixed and floating rate debts within the stipulated parameters. The Company continuously

monitors its interest rate exposures and whenever required, uses hedging tools to minimise interest rate risk.

Commodity Price Risk

The Company is exposed to the risk of price fluctuation on raw materials, energy sources as well as finished goods. However, considering the normal correlation in the prices of raw materials and finished goods, the risk is reduced. The Company's strategy of backward integration, like pulp and caustic soda for VSF, helps in minimising the effect of increase in prices of raw materials**.** Setting up of captive power plants aids in controlling the impact of rise in energy cost, which is a major cost element.

Forward integration in value added products, e.g., specialty fibre in VSF, ready mix concrete in cement, wall care putty in white cement enables to reduce the impact of price fluctuation in the finished goods.

5. **EXTRACT FROM CHAIRMAN'S LETTER - ANNUAL REPORT FY09**

In the Cement Business, the Company's major projects are nearing completion. Clinkerisation plants at Shambhupura and Kotputli, both in Rajasthan, with a capacity of 3.3 million TPA each, have been commissioned. Additionally, work on the cement mills in Shambhupura (1.5 Million TPA) and Kotputli (3.2 Million TPA) is progressing well and one of the cement mills in Shambhupura with a 1.6 million TPA capacity is already operational.

The 1.3 million TPA split – grinding unit at Dadri in Uttar Pradesh has started, while the one at Aligarh in Uttar Pradesh will go in stream by September 2009.

With thermal power plants having a total capacity of 144 MW installed, including 23 MW installed in April 2009, the Cement Business' total thermal power generation capacity is now at 268 MW, meeting nearly 80% of the business's total power requirement.

The Company's capex in Cement during the year was US$ 289 million (Rs.1,467 crores). An investment of over US$ 250 million (Rs.1,300 crores) has been earmarked for completion of the current projects and towards modernisation in the coming year.

6. **EXTRACT FROM CHAIRMAN'S LETTER - ANNUAL REPORT FY07**

Expansion plans at Shambhupura and Kotputli, both in Rajasthan, are progressing in line with expectations. The Shambhupura Plant is slated to be commissioned by the end of FY08. The Kotputli Plant is expected to go on stream by the first quarter of FY09.

Apart from setting up of thermal power plants at these plants, the Grinding Unit at Dadri in Uttar Pradesh will also be up and running by FY08.

7. **EXECUTIVES** (Source: Annual Report FY 09)

The executives of the Cement Division as per published annual report of FY09 of Grasim are:

Mr. S. Misra[10]	Business Head
Mr. O.P. Puranmalka[11]	Business Head (Marketing)
Mr. Ratan K. Shah[12]	Business Head (Manufacturing & Project)
Mr. R.M. Gupta	Sr. Executive President, Vikram Cement
Mr. D.R. Dhariwal	President, Birla White Cement

[10] Note: *Common for Grasim and UltraTech Cement Limited*
[11] Note: *Common for Grasim and UltraTech Cement Limited*
[12] Note: *Common for Grasim and UltraTech Cement Limited*

Mr. Anil Kumar Pillai	Executive President & Unit Head – Rajashree Cement
Mr. S. Natarajan	Executive President & Unit Head – Grasim Cement (South)
Mr. M.M. Tiwari	Executive President & Unit Head – Grasim Cement (Rawan)
Mr. B.B. Joshi	Executive President & Unit Head – Aditya Cement
Mr. Sanjay Agrawal	. Executive President & Unit Head – Grasim Cement (Kotputli)

8. **EXTRACT FROM MANAGEMENT DISCUSSION AND ANALYSIS – ANNUAL REPORT FY09**

(a) Business Performance Review – Cement

	Unit	FY09	FY08	% Change
GREY CEMENT				
Installed Capacity	Mn. TPA	# 19.65	16.75	17
Production	Mn. Tonnes	16.32	15.36	6
Sales Volume[$]	Mn. Tonnes	16.54	* 15.54	6
Average Realisation	Rs./Tonne	3,415	3,192	7
RMC				
Installed Capacity	Mn. Cu. Mtrs.	6.66	5.59	19
Sales Volumes	Mn. Cu. Mtrs.	2.43	1.95	24
Average Realisation	Mn. Cu. Mtrs.	2,804	2,731	3
WHITE CEMENT				
Installed Capacity	TPA	[##] 560,000	475,000	18
Production	Tonnes	441,118	407,882	8
Sales Volume [$$]	Tonnes	438,394	396,295	11
Average Realisation	Rs./Tonne	7,922	6,902	15
WALL CARE PUTTY				
Installed Capacity	TPA	200,000	200,000	-
Sales Volumes	Tonnes	159,880	113,965	40
Average Realisation	Rs./Tonne	19,698	20,143	(2)
NET DIVISIONAL REVENUE	Rs. Crores	6,994.7	*5,921.8	18
DIVISIONAL PBIDT	Rs. Crores	1,912.3	1,876.3	2
DIVISIONAL PBIDT MARGINS	%	27.3	31.7	-

 # includes 1.6 million TPA cement mill commissioned in March 09
Increase in capacity by 85,000 TPA through debottlenecking during Q4FY09
** Excludes traded volumes*
$ Includes captive consumption for RMC
$$ Includes captive consumption for Wall Care Putty

(b) Performance Review for FY09

The Company's cement volumes grew by 6% during the year as the benefit of new capacities accrued only towards the later part of the year.

All major costs increased during the year. The industry faced non-availability of local linkage coal and substantial price increase in non-linkage coal, petcoke and imported coal. As a result, the average fuel and power cost increased by 21%. Raw material cost increased due to higher prices of input, viz., gypsum, fly ash, iron ore and escalation in inward freight. Employee cost rose due to revision in compensation in line with market and additional

manpower for new plants. Cement prices were not able to keep pace with the rising costs leading to reduction in margins.

The market coverage of Ready Mix Concrete has increased substantially with large capacity expansions in the last year. Its volumes increased by 24%. Both volumes and realisation were good for White Cement. The value added product Wall Care Putty registered a 40% growth.

9. **EXTRACT FROM MANAGEMENT DISCUSSION AND ANALYSIS – ANNUAL REPORT FY08**

(a) **Business Performance Review – Cement**

	Unit	FY08	FY07	% Change
GREY CEMENT				
Installed Capacity	Mn. TPA	#16.75	13.12	28
Production	Mn. Tonnes	15.36	14.42	7
Sales Volume* $	Mn. Tonnes	15.54	14.52	7
Average Realisation	Rs./Tonne	3,192	2,867	11
RMC				
Installed Capacity	Mn. Cu. Mtrs.	5.59	2.30	143
Sales Volumes	Mn. Cu. Mtrs.	1.95	1.43	36
Average Realisation	Mn. Cu. Mtrs.	2,731	2,465	11
WHITE CEMENT				
Installed Capacity	TPA	475,000	475,000	-
Production	Tonnes	407,882	364,649	12
Sales Volume $$	Tonnes	396,295	367,167	8
Average Realisation	Rs./Tonne	6,902	6,458	7
NET DIVISIONAL REVENUE *	Rs. Crores	5,890.4	4,889.2	20
DIVISIONAL OPERATING MARGINS	%	31.9	33.2	-

 # includes 1.3 million TPA grinding unit commissioned in March 08 and debottlenecking of capacity by 2.4 million TPA during the year
** Excludes traded volumes*
$ Includes captive consumption for RMC
$$ Includes captive consumption for value added products

(b) **Performance Review for FY08**

The Cement Business has delivered an encouraging performance. Despite capacity constraints, sales volume grew from 14.52 million tonnes in FY 07 to 15.54 million tonnes in FY08, a growth of 7%.

While realisations at Rs.3,192 per tonne improved by 11%, the same was inadequate to meet the impact of sharp rise in energy prices and increase in other input costs. Average fuel cost soared by 31% due to increase in prices of imported coal, petcoke and indigenous coal. Operating margins witnessed a nominal reduction from 33.2% in FY07 to 31.9% in the current year.

The Company successfully transited the “Birla Plus” brand to “UltraTech Cement – The Engineer’s Choice” for a common brand identity across the country.

The Ready Mix Concrete (RMC) business expanded its network at a rapid pace across the country. The number of plants increased from 13 at the start of the year to 31. Consequently sales volumes grew by 36% at 1.95 million cubic meters.

The White Cement division has recorded yet another year of good performance supported by 8% volume growth against the industry growth of 2%. Wall Care Putty, a value added product, grew by 59%.

10. **ENVIRONMENT REPORT – ANNUAL REPORT FY09**

In the Cement Business, the Company has taken a slew of initiatives. For instance –

– **Using fly ash from the Company's Captive Power Plant as a raw material in manufacturing of cement**. The Company's cement plant at Raipur pioneered the transportation of fly ash from power plants in bulk through tankers and pneumatically handling it in the plant. This has significantly reduced the fugitive dust emission in the handling places such as collection point, roads, while transporting and end usage point in the plant. The fly ash generated from the captive Thermal Power Plant is transported pneumatically to the 5,000 Mt fly ash silo and thereby used in manufacturing of Portland Pozzolana Cement.

– **Upgrading the Company's pollution control equipments on a continuous basis for better efficiency**. At Rajashree Cement, Malkhed, the covered shed for bauxite and additive storage has been provided for 25,000 tons to minimize fugitive emission while stacking and reclaiming. The plant at Reddipalayam is a millennium cement plant that consists of new generation Electro-Static Precipitators and Pulse Jet Bag Filters at various stages of unit's operation to control emission levels. Several energy saving technological measures have been incorporated like low pressure drop cyclones, high efficiency duoflex burner, online flue gas analyser in the power plant, online CO and CO2 analysers, online shell scanner, slip power recovery system, variable frequency drives, etc.

– **Using waste water generated** at the Power Plants for gas conditioning towers of cement kilns, cooling in cement mills and for dust suppression.

– **Installing sewage treatment plant for treating the domestic sewage**. A sewage water treatment plant of 1,000 m cube/day is in operation at Rajashree Cement to recycle the sewage water and utilize for processes in Cement manufacturing, Captive Power Plant make up and for Horticulture activities. At the Raipur plant, to use the STP treated water, the Company has laid down arteries of pipeline in the township for watering the plants and saplings thereby maintaining zero discharge condition from the plant.

– **De-silting of mines water generated from strata seepage** and then using it for industrial cooling in the plant and spraying in mines and plant area for dust suppression. Water sprinkling arrangement has also been made at different plant locations and transfer points to suppress fugitive dust. Barrier plantation is also taken up to curtail wind velocity to help reduce fugitive emission. Uniquely designated dust curtains made of scrap conveyor belts are used in drop chutes to further prevent the fugitive emission.

– **Alternate fuels are used in kiln on continuous basis**. The average consumption of alternate fuels is around 1.4% on CV basis. The usage of alternate fuel is helping the Company in conservation of natural fuel reserves, environmental friendly disposal practices, and utilisation of wastes. The Company's plant at Reddipalayam, Tamil Nadu, has among the highest use of non-fossil fuels in South Asia, having substituted up to 10.98% of the heat required in FY08 through the use of agro-wastes, tyre chips and chemicals wastes. This is a programme that is being extended across the Company's Business.

The Company was the first Cement Company to set up a Municipal Solid Waste Plant at Jaipur to process municipal waste, and use it as a substitute for conventional fuels at the Company's Cement Plant at Khor in Madhya Pradesh. At Aditya Cement, Chittorgarh, lead zinc slag, which is a low effect waste of pyrometallurgical operations of Hindustan Zinc Smelter, is used as an alternate raw material (additive) in raw mix. The Company's Cement Plants at Reddipalayam, Tamil Nadu, and at Malkhed, Karnataka, were selected by the Central Pollution Control Board (CPCB) to conduct trials for setting norms for the use of chemical wastes in the Cement Industry. An initiative that sets the standard for the Cement Industry as a whole.

– **Mining operations are made environment friendly** by using machineries like ripper-dozer leading to conservation of natural resources and restoration of ecology. Environment management programme based on air-deck-blasting technique, have also been implemented to reduce the consumption of explosive/heat energy in blasting of limestone at mines. The Company has taken various capex projects like mines road widening work, mechanised gypsum and wet fly ash handling system for environment improvement and potable gas analyser for continuous monitoring.

– All the Company's plants have full fledged and well established effluent treatment facilities based on "Extended Aeration Activated Sludge Process".

The Company has a fully equipped Environment lab at Birla White, which is monitoring AAQ, stack, noise level, and STP water analysis.

The Company's Cement Division at Reddipalayam is the first cement company in the world to receive actual CERs (Rs.3.5 Crores for 2007-08). This is the culmination of the journey after successfully substituting conventional fuel by agro-based alternative fuels and waste tyres and the subsequent venture to claim for carbon credit. FICCI's "Outstanding Achievement in Environment Sustainability of Business" Award in 2008 has indeed been an honour.

Research and Development

R&D Centre of the Company's Cement Business continues its focus on development of new products and processes for value creation and maintaining superior and consistent quality cement. During the year, R&D focused on utilisation of industrial waste from metal industries as raw material. Focus was also on increasing the percentage of slag and fly ash in blended cements without sacrificing quality. R&D was also focused on improving the processes in plants to achieve better energy consumption and reduced emissions to the environment. Future plans are towards development of new products and utilisation of waste fuels to reduce carbon foot print.

The foundation stone for the White Cement R&D Centre namely "Aditya Research & Development Centre (ARDC)" was laid on 20th December, 2008. The building and equipments entail an investment of nearly Rs.6 Crores. The proposed R&D Centre will house sophisticated equipments. The facility will be utilised for testing Birla White special products under specific tests to suit different climatic conditions across the country. The R&D activities planned are for different products such as Wall Care Putty, Plaster and designer floor variants coupled with cost reduction and other processes.

11. **CONSERVATION OF ENERGY AND RESEARCH AND DEVELOPMENT-** Annual Report FY 09)

A. Conservation of Energy
a) Energy conservation measures taken – Cement Units:

— Installation of high efficiency roller press.
— Increase in blended cement production and fly ash absorption in blended cement by optimising Cement Mill operations.
— Installation of Dry fly ash handling and feeding systems.
— Installation of vertical roller mills in new plants.
— Reduction in Pressure drop in Pre-heater by redesigning cyclones using computational fluid dynamics tools and installation of twin cyclones.
— Use of waste heat from Cooler for fly ash drying.
— Installation of Gas Analyser for monitoring complete combustion of fuel.
— Installation of energy saving bricks in Calcining Zone.
— Use of petcoke fly ash of TPP in kilns.
— Installation of VVFD in Chalk Mill vent fan.

b) Additional investment and proposals, if any, being implemented for reduction of consumption of energy – Cement Units:

— Use of medium voltage VFD drives for increased power saving in fans.
— Installation of waste heat recovery systems in pre-heater and cooler.
— Cooler modification for recovery of cooler heat looses.
— Conversion of 4-stage to 5 to 6-stage pre-heaters to recover heat.
— Improve efficiency of process fans.
— Increase of Kiln inlet shell diameter.
— Installation of Gas Analyser for monitoring complete combustion of fuel.
— Installation of two additional modules in Air heater for increased heat recovery.

B. Research and Development - Form B

1. Specific areas in which R&D carried out by the Company – Cement Units:

— Development of eco-friendly products.
— Spray application of Wall Care Putty.

2. Future Plan of Action – Cement Units:

— New R&D set-up with infrastructure for simulation.
— Development of new variant of Wall Care Putty and anti-pollutant products.
— Improvement of adhesive properties of Level Plast and reduce setting

Total Energy Consumption and Energy Consumption per Unit of Production – Form 'A'
Source: Annual Report FY09 & FY08

Name of the Product		Unit	Electricity (Units)			Coal/Petcoke (Kg.)			Steam (Tonne)		
			FY 09	FY08	FY07	FY 09	FY08	FY07	FY 09	FY08	FY07
3	**Cement**										
	Grey										
	Standard	Per Tonne	120.00	120.00	120.00	220.00	220.00	220.00	-	-	-
	Actual	Per Tonne	77.25	77.62	78.27	97.00	96.00	96.00	-	-	-
	White										
	Actual	Per Tonne	115.98	118.77	120.70	0.13	0.12	0.13	-	-	-

12. **SCHEDULES TO THE ACCOUNTS – ANNUAL REPORT FY09 & FY08**

Additional Information under Part II of Schedule VI to the Companies Act, 1956

1. Capacity and Production

Products		Unit	Installed Capacity (Quantity)			Production (Quantity)		
			2008-09	2007-08	2006-07	2008-09	2007-08	2006-07
1	Cement	Tonne	19650000	16750000	13115290	16318294	15363809	14417941
2	Ready Mix Concrete	Cu. Metre	6660768	5593056	2303100	2430474	1953323	1421647
3	White Cement	Tonne	560000	475000	475000	441118	407882	364649
4	Putty	Tonne	200000	200000	200000	162361	115868	74561

2. Turnover and Stocks

(Value Rs. in crores)

Products		Unit	Turnover						Stock					
			2008-09		2007-08		2006-07		31.03.2009		31.03.2008		31.03.2007	
			Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
1	Cement	Tonne	1618890034667	6371.66	1512940248206	5721.46	1484922843888	5026.68	142140	33.44	162924	40.28	174073	38.50

			2*		0*		9*						
2	Ready Mix Concrete	Cu. Metre	2428233 2441*	680.93	1950952 2519*	530.30	1424061	352.32					
3	White Cement	Tonne	404024 34370*	363.37	371276 25019*	302.04	350889 16278*	266.84	22762	12.83	20038	10.14	8451	4.16
4	Putty	Tonne	159817 63*	354.49	113894 71*	264.45	7182252*	164.60	9362	8.91	6881	7.04	4978	5.54

* Inter-Divisional Transfers/Captive Consumption

3. Raw Materials, Stores, Spare Parts and Components

(Value Rs. in crores)

		Unit	2008-09		2007-08		2006-07	
			Quantity	Value	Quantity	Value	Quantity	Value
a)	Raw Materials Consumed							
	Lime Stone	Tonne	19209999	178.85	17179919	150.48	16470965	142.46
	Clinker	Tonne	251753 1192900*	52.08	77550 935840*	14.65	27790 905417*	15.29
	Chemicals (for wall care putty)	Tonne	4537	75.16	3270	48.75	-	-
	Gypsum	Tonne	675164	78.99	704433	72.77	727913	71.73
	Fly Ash	Tonne	2868573 -	121.94	2365533 8321*	106.13	1641418	81.72
	Laterite, Hametite etc.	Tonne	796860	64.03	636813	45.67	591230	29.7
	Sand (for Ready Mix Concrete)	Tonne	1687431	77.93	1544334	59.83	-	-
	Aggregates (for Ready Mix Concrete)	Tonne	2613502	117.62	2138987	89.89	-	-

* consumption of own production

b)	Purchase of finished goods:							
	Cement	Tonne	196494	63.96	236504	79.41	914418	292.99
	Ready Mix Concrete	Tonne		-	148	0.04	2414	0.60

13. **INVESTMENTS -ANNUAL REPORT FY09:**

Schedule 6 – Investments

Amount in Rs. crores

Name of the Company (No. of shares)	FY09	FY08	FY07
Bhaskarpara Coal Company Limited (23,682)	0.02	-	-
Harish Cements Limited (50,000)	0.10	0.10	0.10

Notes to Accounts for FY09 – Schedule 21:

1. The Ministry of Coal, Government of India, has alloted a Coal block in Jharkhand to the Company together with one other allottee for meeting captive consumption requirement. The Company together with other allottees have formed a Joint Venture Company, i.e., Bhaskarpara Coal Co. Ltd. (BCCL) for the aforesaid purpose. In terms of Joint Venture agreement, the Company has been alloted 23682 equity shares of Rs.10 each aggregating to 47.37% of the paid-up capital of BCCL.

2. Advances recoverable in cash or in kind include:

(a) Payments made to/on behalf of Bhaskarpara Coal Co. Limited Rs.0.10 Crores (Previous Year Nil) and Bina Power Supply Co. Ltd. Rs. Nil (Previous Year Rs.9.34 Crores), are intended to be adjusted against the value of the Equity Shares to be issued in the event of implementation of the related project after getting all regulatory approvals.