(i) **Unit Profile**

The Mancherial Cement Works of ACC is situated in the southern part of the country in the district of Adilabad in the state of Andhra Pradesh. It has a railway station at a distance of 2 kms from the plant and it falls on the South Central railway on the Delhi-Chennai line. The state capital Hyderabad is 250 kms away. The Mancherial township is situated on the bank of river Godavari, one of the perennial rivers running through Andhra Pradesh. It is a semi-dry process plant with rated capacity of 3,35,000 TPA of OPC. The plant was first commissioned in the year 1958 and has been continuously renovated and upgraded over the years. It is based on imported machinery supplied by M/s Polysius of Germany. Special Cements like OWC, SRPC and PPC branded as ACC Suraksha are being manufactured at this Works. The following Certification is Awared by BIS

a) IS/ISO 9001:2000 **b) IS/ISO 14001**

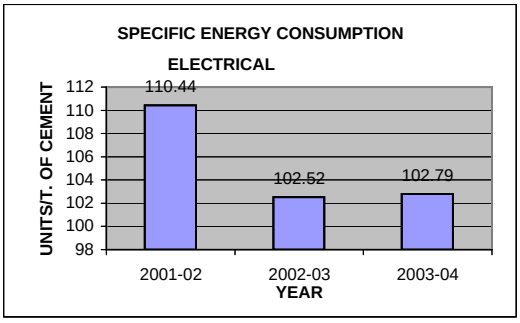
Apart from above we have self declared & adopted 18001

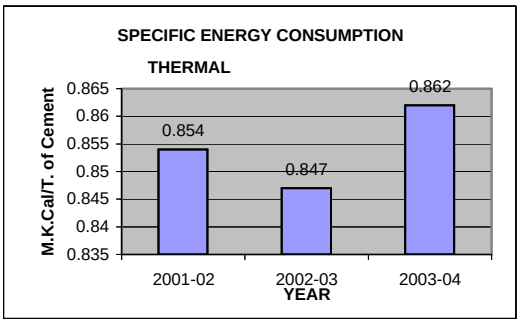
(ii) **Energy Consumption**

DESCRIPTION	UNIT	2001-02	2002-03	2003-04
Annual Production	Lakhs Tonnes	2.13	2.60	2.14
Total Electrical Energy Consumption / annum	Lakhs KWh	266.79	283.70	241.22
Specific Energy Consumption - Electrical	KWh/T.of. Eq.Cement	110.44	102.52	102.79
Thermal Energy Consumption/annum	Million Kcal	37587.96	41820.63	35079.95
Specific Energy Consumption – Thermal	Million Kcal/Cement	0.85	0.85	0.86
Total Annual sales of the unit	Lakhs Rs.	4620.72	4454.92	3096.11
Total Energy Cost	Lakhs Rs.	1690.48	1760.53	1463.13
Energy Cost as % age of total Manufacturing cost	%	49.21	50.85	47.12

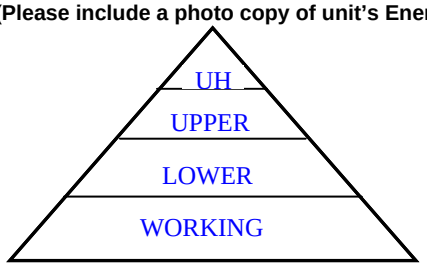
SPECIFIC ENERGY CONSUMPTION

	ELECTRICAL	THERMAL
2001-02	110.44	0.854
2002-03	102.52	0.847
2003-04	102.79	0.862





(iii) **Energy Conservation Commitment, Policy and Organizational Set up**
(Please include a photo copy of unit's Energy Conservation Policy, if decided)



MCW is committed to Total Energy Management. Commitment of entire unit at all the level includes their family at Colony. Encon feature have been incorporated from the Mining stage to Product Despatch and also there has been continuous measures to reduce the energy consumption through Technology up gradation inline with its available funds

The Unit Head gives all the necessary support and encouragement to EM activities. Upper Core forms the middle management comprising of Sr.Mgrs, Managers. The lower Core includes all the Department Heads including Energy Manager and MIPS. The Working group comprises of plant Energy Co-Coordinator from various Departments at all levels. They identify the problem, form Quality Circle Group, discuss and look for continuous improvement. Apart from the above internal & external agencies conduct brainstorming of various measures on EC taken at various industries and implement the same if it suits in their work place involving all the employees. The performance is monitored continuously and reviewed periodically and reported to top management. The above group works in close co-ordination to achieve the end result of Energy Saving. Apart from above the cell arranges Workshops for beneficiary of colony ladies & children on energy saving methods on cooking Gas, as well as utilization of energy saving lamps i.e. compact fluorescent lamps which is most welcomed by all at this juncture. Also the IOC conducted training classes for

THE ASSOCIATED CEMENT COMPANIES LIMITED
MANCHERIAL CEMENT WORKS

ENERGY POLICY

We, at ACC-Mancherial, are committed to optimally utilize various forms of Energy (Fuel & Power) in a cost effective manner to effect conservation of Energy resources. To accomplish this, we will:

- Monitor closely and control the consumption of energy of various departments through an effective Energy Management Information System.
- Adopt appropriate Energy Conservation technologies from time to time.
- Maximize the use of cheaper, non-conventional and easily available forms of Energy.
- Make Energy Conservation a mass movement with the involvement of all employees.
- Conduct regular Energy Audits.
- Minimize waste generation and try to reutilize the same.

(Signed)
Date: 1-8-1996 VICE PRESIDENT

The ACC Ltd. is a huge organization and is one of the leading cement producers in India. The changing industrial scenario and the increased input costs in the cement sector is required to be met by means of adopting the energy saving methods and ultimately leading to reduction in the production costs. As a part of this process, The ACC Ltd, Mancherial Cement Works carries out periodical energy audits with the help of internal and external audit teams in the plant and takes up the modification projects to bring down the input costs.

(iv) **Energy Conservation Achievements**

During the last financial year, Mancherial Cement Works has implemented 6 energy saving projects which were received from the audit teams, Energy cell and as well as from SGA and QC groups. By investing Rs. 3.80 lakhs, we could achieve the savings of Rs. 4.45 lakhs. This has resulted into a reduction of 1.85% of electrical energy consumption and a reduction of 1.31% of thermal energy consumption.

Include one paragraph write-up on each major energy conservation project implemented during the year 2003-2004 only.

1. Optimisation of Mulkalla water pump running hour.

Before implementation
Water Pump running = 22 Hours/Day
After implementation
Water Pump running = 16 Hours/Day
Investment Occurred (in Rs.Lakhs) = 0.31050
Savings on electrical energy (in Rs.Lakhs) = 3.0 / Annum

2. Installation of Belt conveyor for transporting of T.S.fines & dust collector disch. material.

Before implementation
Consumption Kwh in Lakhs = 1.0 / Annum
After implementation
Reduction Consumption Kwh in Lakhs = 0.5 / Annum
Investment Occurred (in Rs.Lakhs) = 3.5
Savings on electrical energy (in Rs.Lakhs) = 1.5 / Annum

3. VFD for Rawmill No.1 Exhaust fan(Dust collector fan) & Raw meal twin screw

Before implementation
Consumption Kwh in Lakhs = 3.0 / Annum
After implementation
Reduction Consumption Kwh in Lakhs = 1.2 / Annum
Investment Occurred (in Rs.Lakhs) = 2.5
Savings on electrical energy (in Rs.Lakhs) = 4 / Annum

4. FRP fans for kiln shell cooling

Before implementation
Consumption Kwh in Lakhs = 3.0 / Annum
After implementation
Reduction Consumption Kwh in Lakhs = 1.0 / Annum
Investment Occurred (in Rs.Lakhs) = 0.1
Savings on electrical energy (in Rs.Lakhs) = 3.3 / Annum

(v) Energy Conservation Plans and Targets

Energy Conservation Measures (Planned)	Project Commencement & Completion year
Optimisation of Power by modification of Main	2006
Optimisation of Packing house dust fan RPM.	2004
To arrange top cover closing arrangement to	2005
Installation of Welding set energy Saver.	2005
To reduce one stage of mulkula water pump .	2004
Optimisation of voltage for Street lighting.	2005
To improve efficiency of lighting transformers.	2004
To Provide VVVF for RAW MILL NO 2 Dust	2005

(vi) **Environment and Safety**

ACC, Mancherial had been a forerunner towards its concern for safety. All the employees working in the plant including contractors enter inside the plant with Safety helmet & Safety shoes, provided by the company. Necessary PPE are issued to the employees including contract employees.
Monthly safety audits are carried out as per British Safety Council's 5-star questionnaire. Annual safety audits are carried out by renowned organisations such as National Safety Council, Tata AIG risk management services, Zurich India ltd. etc. For improving the awareness among the employees, various training programmes are organised (both internal and external) covering aspects such as job hazards, safe work procedures and other safety related information. Motivational activities are also undertaken such as celebration of World Environment day, National Safety Week etc., and conducting various competitions. Safety patrolling has been started in the year 2000 in which one person is provided training on safety and is entrusted the job of safety patrolling. Effective measures taken towards safety have resulted in bringing down the no. of accidents (from 7 in 1999 to 2 in 2002).

The company had self determined to adopt Occupational, Health and Safety management system as per **OHSAS 18001** during the middle of the year 2001 and the necessary systems / procedures have been devised. A self declaration of conformance to system was made on 15th Aug 2002.