

## **CASE STUDY 8 : LIQUID INDUSTRIAL ORGANIC SOLVENT AS ALTERNATE FUEL - ULTRATECH CEMENT LIMITED, TADIPATRI**

Project Implemented by : UltraTech Cement Limited, Tadipatri

Project Implemented in : 2007

### **Company Details**

UltraTech Cement Limited, a subsidiary of Grasim Industries Limited, a group company of Aditya Birla Group is a leading manufacturer of cement in India with installed capacity of about 17 Million Tonnes Per Annum (MTPA).

UltraTech's cement plants are located in Maharashtra (Awarpur), Chhattisgarh (Hirmi), Gujarat (Kovaya) and Andhra Pradesh (Tadipatri), NCCL (Jafarabad) with grinding units at Orissa (Jharsuguda), TamilNadu (Arakkonam), West Bengal (Durgapur), Gujarat (Magdalla) and Maharashtra (Ratnagiri). Grasim – UltraTech Cement combined is one of the largest cement producer in India having 21% of installed Indian cement manufacturing capacity & is the 8th largest cement producer in the world.

### **Project Details**

APCW has established a comprehensive system for usage of waste as Alternate Fuel in its process. It uses pharmaceutical waste (both solid and liquid) as alternate fuel. It also uses various other wastes such as paint sludge, spent carbon, Dicomol powder, cotton waste, ETP sludge, organic solvent.

APCW has installed 45 KL capacity tank at Line-1 and temporary truck tanker of capacity 20 KL in Line-2 for storage of Liquid Organic Solvent, which is a Pharma waste used as alternate fuel. Presently, the unit is using the Liquid Organic Solvent as a fossil fuel up to 3%. The target is to use this pharma waste up to 5%, which effectively replaces the conventional fossil fuel.

### **Issues faced during implementation**

Handling of hazardous material is always an issue. With the help of supplier, the technical know-how was developed, necessary safety precautions have been taken for safer operation.



## Financing of the Project

The plant has invested about Rs 1.0 Crores for implementation of the project. This investment is for conveying and handling equipment.

## Results of the Project

APCW is replacing fossil fuel with alternative fuels in the range of 5-10 %. 1% replacement of fossil fuel (on thermal basis) with bio mass or alternate fuel can save 1.85 kg CO<sub>2</sub> /MT of clinker.

- Usage of alternate fuel substitutes coal consumption
- Found to be environmental friendly since it supports sustainable development
- Reduced CO<sub>2</sub> emissions of carbon foot print
- The variable cost of manufacturing is reduced

## Replication Potential

Replication potential is very high. Cement plants can install alternative fuel handling system, depending on availability of alternative fuel.

## Recommendation to other units

All cement plants are recommended to install alternative fuel handling system.

## Contact Information of the plant

Mr P S Radha Krishna

UltraTech Cement Limited

APCW, Bhogasamudram, Tadipatri

Ananthapur (DT) - AP - 515415

Phone : 08558-288847

Fax : 08558-288821

Email : radhakrishna.ps@adityabirla.com