CASE STUDY 7 : MANAGING DIVERSE ALTERNATE FUELS - ULTRATECH CEMENT LIMITED, GUJARAT CEMENT WORKS

Project Implemented by : UltraTech Cement Limited, Gujarat Cement works,

Project Implemented in : 2008

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 (Tadpatri), NCCL (Jafarabad) with grinding units at Orissa (Jharsuguda), Tamil Nadu (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.

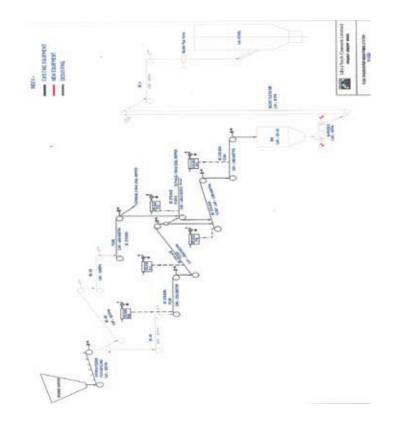
Project Details

UltraTech Cement Limited, Gujarat Cement works (GCW) installed comprehensive system to feed alternative fuels in Calciner vessel.

Wastes such as tire chips, rubber dust, rice husk, processed municipal solid waste is fed to storage bin via ground hopper. These waste fuels will have calorific value in the range of 3000 to 3800 kCal/ kg waste fuel. Alternative fuel or waste fuel will be dried, before firing to calciner vessel.

This system consists of

- Separate belt conveyor system to carry alternative fuel in storage bin with capacity of 150 m3 and to feed Alternative fuel in calciner vessel.
- 2. Storage bin and weigh feeder below bin for controlled feeding of alternative fuel
- 3. Bucket elevator carries the waste fuel from weigh feeder discharge to feeding pan conveyor
- 4. Double air sluices gates at feed points avoid false air system



Issues faced during implementation

Following issues are faced during implementation of this project

- 1. Layout design & Erection of system, in running plant is big challenge
- 2. Jamming material at storage bin
- 3. Surges in the flow of lighter material

Financing of the Project

The plant has invested about Rs 200 Lakhs for implementation of the project.

Results of the Project

Reduction in CO2 emission of 29,988 MT per annum is achieved.

Replication Potential

Replication potential is very high. This project can be implemented in other cement plants, where coal is fired. 7 cement plants from UltraTech group have implemented this project.



Recommendation to other units

It is recommend to try this project in other cement plants, wherever it is applicable.

Contact Information of the plant

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