CASE STUDY 4 :RICE HUSK AS ALTERNATIVE FUEL IN CEMENT KILN - LAFARGE INDIA PVT LTD, ARASMETA CEMENT PLANT

Project Implemented by : Lafarge India Pvt Ltd, Arasmeta Cement Plant

Project Implemented in : 2008

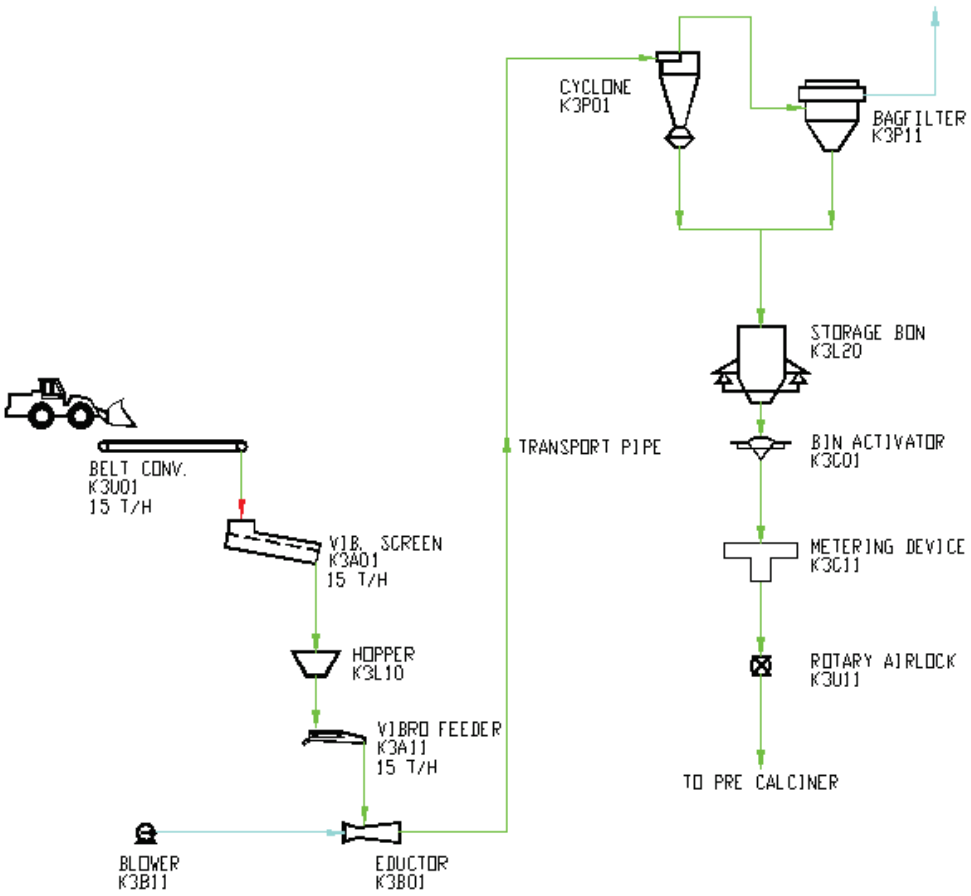
Company Details

Lafarge Group, a Fortune 500 French giant, is a leader in construction The group's Indian operations, Lafarge India Pvt. Ltd., started in November 1999, subsequent to the take-over of Tata Steel's Cement division. The company acquired a total capacity of 4 million tonnes of cement and after de-bottle-necking, currently, has a manufacturing capacity of 5 million tonnes of cement and 3 million tonnes of clinker. Two of its plants are located in Chhattisgarh and one Grinding Unit is located in Jharkhand. Lafarge India's operations include production and retailing of Portland Slag Cement, Ordinary Portland Cement and Portland Pozzolana Cement besides clinker and colour roofing products.

The company has a good social focus and some of its activities include providing training to unemployed youth, computer education for girls and computer-aided education for others, supporting the setting up of an eye care institute in Raipur. As part of its social initiatives Lafarge Group has launched a programme in India aiming to help provide affordable housing for the people belonging to the low-income group. In addition, Lafarge is also engaged in the rehabilitation of quarries that aid the near-by villages through water harvesting.

Project Details

Lafarge India Pvt ltd has put up a system of firing Rice Husk as an alternative fuel for the Kiln to reduce Coal Consumption. The system comprises of a feeding system, a conveying system and a feeding system. This is a very effective way of disposing Risk Husk – an agricultural waste and is available in abundance in our region.



Results of the Project

Use of Rice husk substituted 5-8 % of coal used in kiln and PC firing. Reduction in CO_2 emission details as Mentioned below:

Actual	629	629	629	607	607	607	576	579	586
Planned	600	600	600	600	600	600	600	600	600
	Without rice husk in 2007						With rice husk in 2009		

Reduction in emissions of sulfur and other pollutants associated with the use of fossil fuels.

Replication Potential

Similar installations are possible in several cement plants, subjected to availability of rice in the same region.

Issues faced by the unit during the implementation of the project

Storage of high volume of rice husk is a problem as the bulk density of Rice Husk is very less and thus it occupies a big space for storage and in this process it gets contaminated with foreign materials and is exposed to moisture and thus creating a problem of flowability during feeding and firing. Thus Plant team has made many measures for safe storage of rice husk so that it does not get contaminated.

Recommendation to other units

Other cement plants are recommended to implement this project, subjected to availability of fly-ash.

Contact Information of the plant

Mr Siddhartha Banerji
Vice – President
Lafarge India Pvt. Ltd.
Arasmeta Cement Plant
PO: Gopalnagar,
Dist: Janjgir - Champa
Phone : 09179011126
Fax : 07817234286
Email : Siddhartha.Banerji@in.lafarge.com