

CASE STUDY 2 : CO-PROCESSING OF PLASTIC WASTE IN CEMENT KILN - ACC LTD, GAGAL CEMENT WORKS

Project Implemented by : ACC Ltd, Gagal Cement Works

Project Implemented in : 2010

Company Details

ACC Limited is India's foremost manufacturer of cement and concrete. ACC's operations are spread throughout the country with 16 modern cement factories, more than 40 Ready mix concrete plants.

Since inception in 1936, the company has been a trendsetter and important benchmark for the cement industry in many areas of cement and concrete technology. ACC has a unique track record of innovative research, product development and specialized consultancy services. The company's various manufacturing units are backed by a central technology support services centre - the only one of its kind in the Indian cement industry.

Gagal Cement Works is one of cement plants in ACC Group. This is located at Barmana, Himachal Pradesh. Capacity of ACC, Gagal is MTPA.

Background

Green Soldiers from Gagal Cement works launched first project titled 'Making Gagal Plastic Free'. Segregation is the essence of effective waste management and hence, a workshop was organized for the stakeholders. All colony and local village residents were invited for a discussion on the strategy. Green Soldiers team was trained on the ways to segregate the plastic waste.

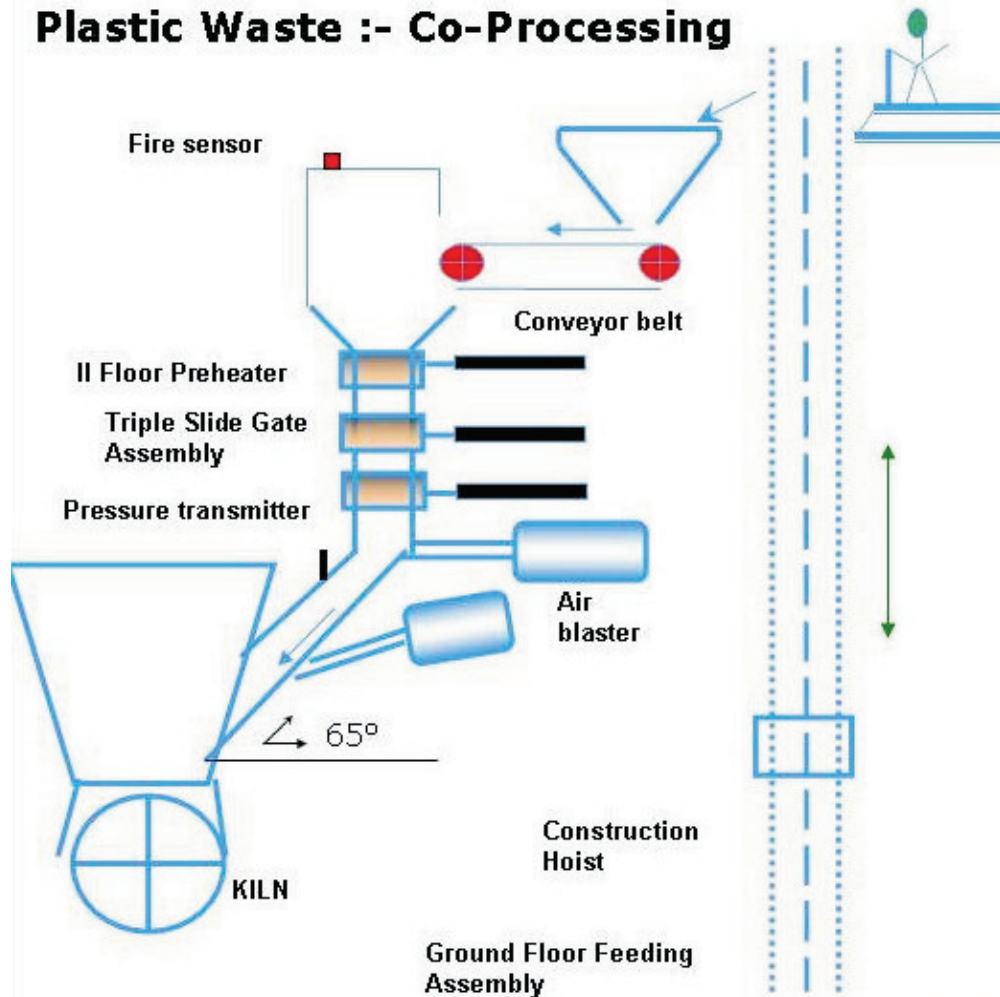
The Green Soldiers team collected about 53 Tons of plastic waste, which was successfully co-processed in Gagal cement kiln.

Project Details

The plastic waste collected from the villages, colony and plant premises were weighed at the weigh-bridge each week after the collection drive.



The drive started with collection of 50 kgs/week, which is presently recording approximately 2 Tons of collection per week. This gave a clear indication that the stakeholders were increasingly becoming more aware about segregation and concerned about their environment.



Flow Sheet for Co-Processing of Plastic

Process Description

Financing of the Project

Investment required for this project is very minimal as system was already developed.



Results of the Project

- Co-processing of waste at cement kiln is the best disposal option than conventional options of land filling and incineration.
- Substitutes fossil fuel

Replication Potential

The initiative can be replicated across other industries and companies countrywide, as well as at a global level. The beauty of the initiative is that, keeping the ideas intact, the projects can easily be moulded to suit the climate, topography and biodiversity of any area across the world. Our natural resources are getting scarce by the minute and alternate fuels such as bio-charcoal / plastic are an excellent way to alleviate this paucity of non-renewable energy sources

Recommendation to other units

It is recommended to co-process the waste in cement rotary Kiln.

Contact Information of the plant

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