



VICAT IN INDIA

**WASTE MANAGEMENT THROUGH CO-PROCESSING
VICAT IN INDIA
CII WASTE MANAGEMENT SUMMIT 2016-MUMBAI.
MILIND MURUMKAR.**



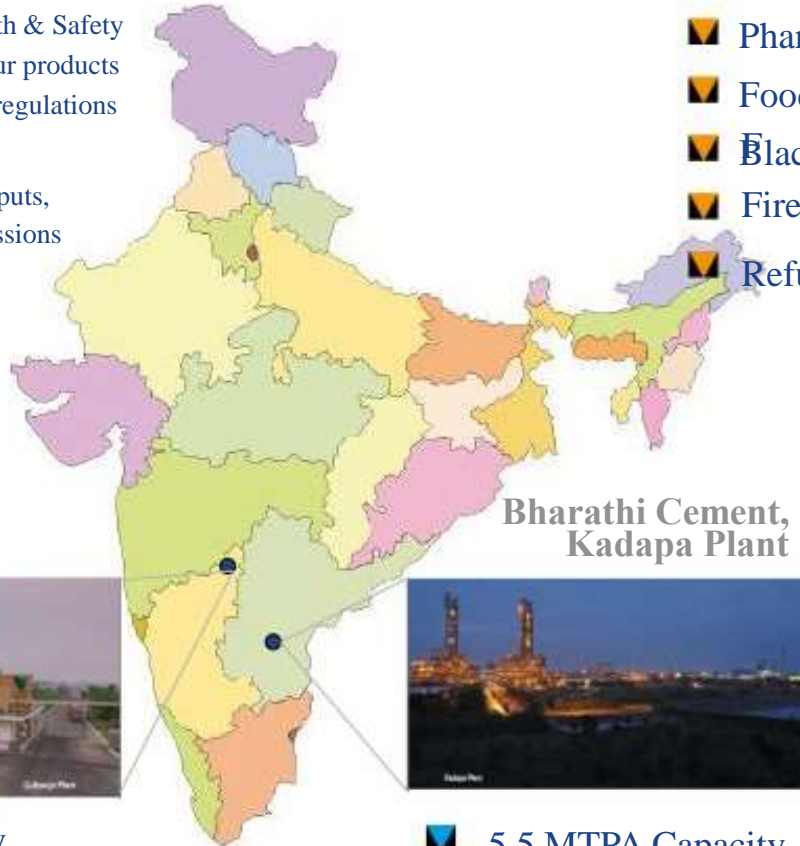
VICAT IN INDIA COMMITMENT TOWARDS ALTERNATIVE FUELS

AFR Mission

- ▣ Add value to core business
- ▣ Ensure Occupational Health & Safety
- ▣ Guarantee the quality of our products
- ▣ Comply with the relevant regulations and promote best practices
- ▣ Monitor and control the inputs, process, products and emissions

▣ Since 2011, cement plants in India are using various types of alternative fuels and raw materials as under

- ▣ Pharmaceutical waste
- ▣ Food & Bewarges / FMCG
- ▣ Black Carbon / Dolachar
- ▣ Fire Wood / Bio Mass (Mango Seeds)
- ▣ Refused Derived Fuels from MSW



Vicat , Gulbarga Plant



▣ 2.75 MTPA Capacity

▣ 1 Kiln : 7000 TPD
(Line 1 : Nov' 2012)

▣ AF usage since 2013

Bharathi Cement,
Kadapa Plant



▣ 5.5 MTPA Capacity

▣ 2 Kilns : 5000 TPD
(Line 1 : 2009, Line 2: 2010)

▣ AF usage since 2011

▣ AF Substitution Rate :20%

▣ Aggressive Investments are done in past 2 years in both plants to promote use of “Alternative Fuels “

▣ Planning to achieve 40% substitution rate at both plants by year 2020.

Plans of utilizing industrial hazardous & Non-hazardous waste that can offer long term sustainable solutions to the industries of Telangana & Andhra Pradesh

FEEDING MECHANISMS & EXPERTISE

▼ Available feeding systems

- ▼ RDF – Shredder, Pneumatic conveying system to Pre-calciner
- ▼ Non Hazardous / Expired FMCG etc.,
- ▼ Tyres - Shredder, Double flap valve to kiln
- ▼ Solid & semi solid feeding - Double flap valve to kiln
- ▼ Liquid – Liquid handling system connected to Kiln through pipe lines

▼ Laboratory

- ▼ Dedicated laboratory for Proximate, Ultimate & Heavy Metal analysis of waste

▼ Expertise & Dedicated Team

- ▼ A team of 50 people are working for alternate fuels to increase the substitution rate

▼ Environment & Safety

- ▼ All our stacks and ambient air quality monitoring stations are well connected with CPCB & APPCB website and also we have arranged fire fighting equipment's, fire hydrant systems

▼ Commitment

- ▼ we have commitment in group level to reach alternate fuels substitution rate up to 40 % by end of 2020

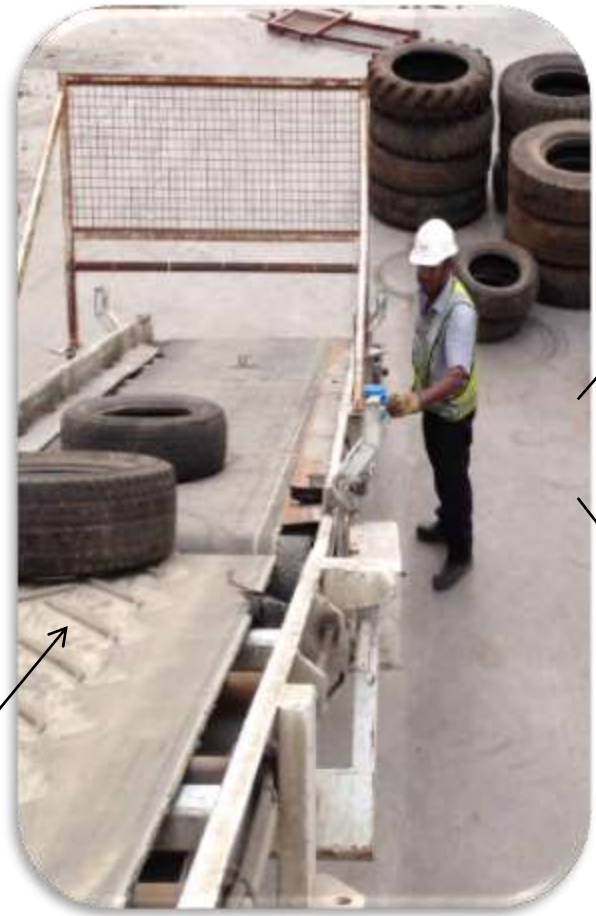
RDF HANDLING SYSTEM at BHARATHI CEMENT PLANT



- Mechanized system to collect the material from unloading point and transfer to the hopper for feeding in to secondary shredder through conveyor.
- Capacity of grab crane - 1 MT
- Through Crane, material will be passed into shredder
- Shredded material will be pumped into pre-calcinar through pneumatic system



PRE-PROCESSING OF TYRES



Shredding

Tire Chips



CO-PROCESSING OF TIRES

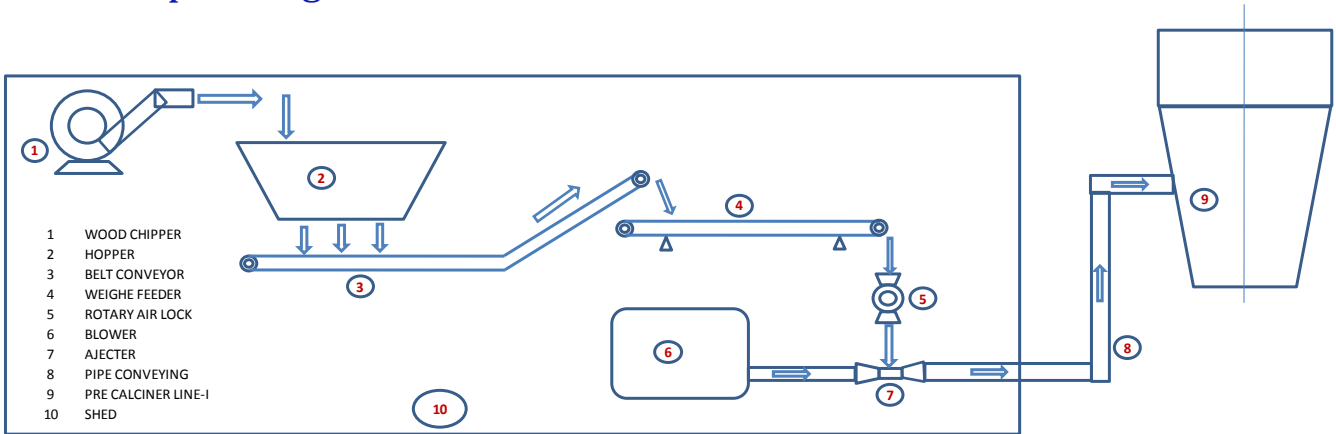


ALTERNATIVE FUEL SOLID WASTE DIRECT FEEDING

Storage shed - Semi solid Pharma waste



Double Flap arrangement



ALTERNATIVE FUELS – LIQUID FEEDING SYSTEM



SOLID & SEMI SOLID WASTE FEEDING SYSTEM



Pre Processing Station for processing of different types of solid, semi solid ,commodities etc.to make a uniform waste mix for feeding through Double flap system to Kiln



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ALTERNATE FUEL – LABORATORY

I-CAP from Thermo (Detection of Metals)



Spectrophotometer (Detection of chlorides)



IKA Bomb Calorimeter for testing Calorific Value



SAFETY & ENVIRONEMNT



Shower

Eye Wash



Nitrogen
Blanket



CONCLUSION

