

Chandera Cement Works, Chandera
(A unit of M/s. Birla Corporation Limited)

Company Profile

CHANDERIA CEMENT WORKS, CHANDERIA is a modern dry process plant of the Cement Division of Birla Corporation Ltd., Calcutta, which is a multi-product Company and a part of the **M.P. Birla** Group of Industries. It is supplied by FLS/L&T with five stage preheater inline calciner kiln and central computerized control. The other important facilities are pre-blending yard for limestone, controlled flow homogenizing silo, x-ray analyser, ball mills with tertiary crusher for raw grinding, closed circuit ball mills for cement grinding, flyash feeding system for Cement Mill No.1, well equipped ESPs in all sections and more than 40 Bag Dust Collectors at various locations for maintaining clean & healthy environment. The endeavour of the organisation is to adopt latest technological advances wherever possible.

The company is awarded with ISO 9001-2000 and ISO 14001 certificates. The company has also applied for NABL certification.

Company has also initiated Carbon Trading activities, as there is a substantial reduction in greenhouse gases emission due to different energy conservation measures taken.

For improvement of the productivity of the plant and to conserve energy, systematic on-going programme was taken up, the important features are :-

1. Preheater fan replaced with high efficiency and higher capacity to enhance plant capacity and as an energy conservation measures.
2. ESP fan replaced with high efficiency and higher capacity to enhance plant capacity and as an energy conservation measures.
3. Kiln main motor replaced with a higher capacity & higher rpm motor in view of capacity expansion.
4. Kiln's girth gear leaf springs replaced with higher rated leaf springs in view of capacity expansion.
5. 6 Nos. VFDs installed at various sections for energy conservation.
6. Dedicated flyash feeding system installed for manufacturing PPC (flyash based) in Cement Mill No.1.
7. Preheater 2nd, 3rd & 5th cyclones were replaced with low pressure cyclones to reduce pressure drop across preheater tower.
8. 1st stage conventional twin cyclones were replaced by low pressure twin cyclones.
9. Preheater 2nd, 3rd & 5th stage riser ducts were modified to reduce pressure drop across preheater tower.
10. Installation of wagon tippler, stacker & reclaimer for coal.
11. First grate FOLAX cooler was retrofitted with CFG to reduce thermal energy.
12. Electronic packing machines were installed.
13. Mechanical transport system was installed in raw meal & kiln feed sections in place of pneumatic transport system.
14. In preheater downcomer and gas conditioning tower, Envirocare atomised water spray system was installed.
15. A truck tippler for unloading coal and blending this coal with indigenous coal was installed.
16. For increase in productivity of raw mill section and saving power, tertiary crusher system was installed in raw mill section.
17. Cement Mill 2 close circuiting was done, resulting in increased productivity.
18. Installation of VRM for petcoke/coal grinding.
19. Installation of flyash storage & feeding system for Cement Mill No.2.
20. Modification was done in belt conveyor of Overland Belt Conveyor by removing the tripper bend pulley.

A New mines has been developed about 5 Kms away from plant, as the old one had been abandoned due to depletion of limestone. Overland Belt Conveyor is being used to transport crushed limestone to plant.

Energy consumption, conservation commitment, policy & setup and conservation achievements

All details regarding power consumption, conservation commitment, policy & setup and conservation achievements etc. have already been given in Annexure 2,3 & 4.

Energy conservation plans and targets

1. Participating in Bureau of Energy Efficiency scheme for energy managers.
2. Continuous monitoring of energy norms fixed by expert agencies including National Council for Cement and Building Materials.
3. Energy Cell members are being sent to energy conservation seminars for getting new ideas of energy saving and find the ways to implement the same.
4. Interaction with other cement producers.
5. Upgradation of technical knowledge based on technological development in field.
6. Energy cell members have been asked to identify energy deficient areas / equipment to make the areas / equipment energy efficient.
7. Planning for Benchmarking activity.