

# **SUCCESS STORIES OF WESTERN COALFIELDS LIMITED**

## **4. SUPPLY OF SUBSIDISED SAND FROM OVERBURDEN FOR LOW COST HOUSING**

The reserve of river sand, the traditional building material used in civil works, is getting depleted due to over exploration. Urban expansion, local legislation and environmental constraints have made the extraction of natural sand and gravel an expensive activity. There is a need to find an alternative to meet the growing demand for fine aggregates. Amongst the various alternatives, sand as building material in civil works, the first choice has been overburden from opencast mines due to their ready stock.

The overburden(OB) spread over in situ coal seam needs to be removed for extraction of coal to an external dump till sufficient space is created for internal back filling by acquisition of land nearby coal bearing area. Further this overburden dump needs to be re-handled at the time of closure of mine for land reclamation. However, there is a 20% swell factor for overburden which can be safely extracted from OB dumps even after re-handling the dump for mine closure. River sand is the most commonly used building material in civil works, studies shows that processed sand from OB dumps will be the best alternative of river sand. If overburden is processed, it generally yields 60-65% sand, 25-30% clay and 5% pebbles. The processed OB (Sand) is being supplied to Govt agencies on subsidized basis.

An MoU has been signed on 1st January 2017 with Nagpur Improvement Trust(NIT) for its applicability in prestigious housing project of Pradhan Mantri Awas Yojana (PMAY) undertaken meant for poor and low income groups. Due to huge demand of sand as an essential input for construction/infrastructure development of the country, a thought process was initiated to recover the sand from overburden of Opencast Mines. As an initiative towards green technology, a pilot sand segregation plant has been designed and developed at Area Work Shop, Nagpur Area, WCL. The same has been installed in the premises of Bhanegaon OCM for segregation of sand from running OB of Bhanegaon OCM. Highlights of the project are as follows

- Output is approximate 250 cubic meters/day.
- Quality of sand will be as per IS Code 383-2016, 2386 Part- I, II, III, V.
- The applicable rate is Rs.160 / cum of sand which is much below than the prevailing market price.
- Till date 20,869 cubic meters of sand has been despatched to Nagpur Improvement Trust(NIT) for its applicability in prestigious housing project of Pradhan Mantri Awas Yojana (PMAY)