

# **Improvement Journey in performance of JVSL Pellet Plant**

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## **Abstract**

The three million tonne per year capacity pellet plant of JVSL has made significant strides over several months of operation, since its inception on 28th of Nov'00.

The operation had seen a gradual improvement in production from 2000-3000 tons per day in the early December'02 to 6200 tons per day in May/June'01 and then reaching an average production rate of 7200 tons per day in January '02. The rated and designed capacity of 10000 tons per day was also achieved on Dec 30th 2001. The months of July, Aug, Sep-02, showed continual improvement, as productivity levels reached a new height.

With respect to the downtime, the plant's performance has been improving; as major areas of concern of downtime were addressed to and reduced in large proportions. Majority of the equipment had been tested for running at higher production and have demonstrated it at times.

Quality parameters such as RDI to meet the stringent requirement of Corex was a challenging one. This is the most difficult property to improve, as it is the second level property, which requires an extra process step to reach the stringent level. This property is affected by variety factors, which are subtle. Process parameters had been examined in depth and process was tuned to yield higher consistency. The other quality parameters such as tumbler index and CCS (Cold Crushing strength) were enhanced.

The dedusting systems in the plant were also given due importance. Modifications in the dedusting system have also led to improvements in the eco friendliness nature of the plant. Fugitive emissions have been reduced drastically. The performance of ESP's needs special mention as optimisation of the rapping frequency, alignment of GD Screen etc have also resulted in environment emission levels to less than 100mg/nm<sup>3</sup>.