

AGGLOMERATION OF IRON ORE DUST FINES USING WASTE CALCIA AND FLY ASH DUST FINES

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Project report submitted in partial fulfillment of the requirement for the degree of

BACHELOR OF ENGINEERING IN CHEMICAL ENGINEERING VISVESWARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM



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SYNOPSIS

[Hematite and magnetite are the most prominent source of iron ores available in India. About 60% of hematite ores are available in eastern part of India and 80% of magnetite ores are found in Karnataka region. Most important magnetite ores occur in Bababudangiri, Kudremukh, Bellary, etc.

In Bellary-Hospet region the production of iron ore fines from private mines in substantial and fines are unwashed. The fines from Bellary Hospet region generally have 63-64% Fe content of 100 mesh fractions.]

The primary objective is for safe storage of tailing material.

Beneficiation and Pelletisation of the iron ore fines has been the main stay of different iron ore process industries in Karnataka. Dasturco was assigned the Pelletisation of 0.6M.T of fines by Janaki Corp., Bellary Karnataka.

2 [Basically in the process of iron ore extraction, the lumps are utilized and all the dust fines are not utilized. The dust fines causes pollution and clog the furnaces' exhaust.

So Pelletisation has to be carried out for the recovery of iron present in the fines. For obtaining required strength of the pellets, various combinations of the binders have to be added in different proportions to the iron ore fines.]