

To D.R.D.; W.A.C.

Date July 7, 1966

From E. O. F.

Ref. dvd

Subject J. W. Grainge Correspondence, dated 4th July, 1966

Should chemical treatment of mill waste effluent ever become mandatory, the Cottrell Dust wash thickener o'flow would be a reasonable place to start.

It is possible the tonnage of solution from this source could be substantially reduced. We now have two 3" diameter pipe lines delivering cottrell dust pulp to the carbon circuit; this normally requires about seven hours pumping. When the hoppers are empty, fresh water is allowed to flow continuously. This practice is justified during winter to prevent frozen pipe lines but could be abandoned during the summer.

In place of fresh water for pulping cottrell dust, I would suggest substituting calcine wash thickener o'flow from the Dorrco roaster building. This solution is 70 degrees F. and would pick up additional heat from the hot dust, providing a constantly warm pulp with improved settling characteristics. This would also provide a smaller tonnage of more concentrated solution for treatment. If during the actual period of transporting dust, additional dilution was required, some fresh water could be supplied.

Mr. Grainge's suggestion for a contact lagoon close to the mill would only be applicable from May to October. The remainder of the year the solution would form a miniature ice field. The only location available for constructing a lagoon adjacent to the mill is the swamp area at the north east corner of the A. C. Roaster Building. This location has the disadvantage that if any leakage occurred, it could seep down the raise into the arsonic storage stopes.

If this suggestion is to be adopted, we could make available sufficient equipment for a pilot scale test. In the kiln building we have a thickener and a 14 ft. diameter agitator in which solution for treatment could be stored. Between the kiln building and the A. C. Roaster building we have a trough with baffles constructed of wood plank. This is about 100 ft. x 6 ft. x 2 ft. This could be filled with oxidized scrap iron and the solution metered in to determine the contact required for acceptable results. This trough is presently filled with sludge and would have to be emptied.



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E. O. Foster