

To K.G. Thomas
Copies To
From B.C. Cross
Subject Arsenic Trioxide Markets

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Ref.

It is my opinion that Giant should immediately put higher priority on developing a method to recover underground stored arsenic dust and start investigating how we will handle bulk loads of Kopper's residue. An alternative to the latter might be sending this residue to another C.I.P. circuit located somewhere cheaper to reach than Giant.

Campbell Red Lake and Giant seem to be the only North American sources of crude arsenic trioxide now. T.J. Desanti's memo of Mar.21/85 states the expectation of the Wood Preservative market for C.C.A. (chromated copper arsenate) to grow by 10-15 % this year. Personal correspondence with Canadian government market research specialists have quoted a 20 % annual growth rate. Environmental concerns with the other two major wood preservatives , creosote and pentachlorophenol ; both water soluble (ie. toxic to aquatic animals), indicate that C.C.A. will continue to increase it's total percentage of the market.

With Asarco shutting down it's Tacoma smelter and arsenic plants, Koppers will be forced to increase their purification capacity by 4,000 - 5000 TPY of refined arsenic trioxide to maintain current C.C.A. production. To do so, crude trioxide from Giant ,the Philippines or El-Indio in Chile will be required. An alternative is purified material from Con or Boliden in Sweden. I'm not sure but I suspect there might be some available from Salsigne, France.

In 1984 and thus far this year Giant has not received any payment for the baghouse dust shipped to Koppers. Year-to-date 47 trailer loads for a total of 1115 short tons have gone south. Using U.S. \$315. for gold and U.S.\$0.40 for As₂O₃ ,the value contained (if 100 % purification was possible) was \$811,630. U.S.. At this time however ,because of a lack of additional underground storage these shipments must continue .

We know Con's Arsenic Plant has a limited life on their feedstock and that they will take Giant's underground material for test purposes now, if we can get get it to them. They also would like Giant to handle gold recovery from the Arsenic Plant's residue. A sample of this residue has gone to Lakefield Research for testing the treatment suitability of it in Giant's C.I.P. circuit under current operating conditions. The similarity of this material to Giant's Cottrell dust makes us anticipate 85 % gold recovery. Giant likely has the gold recovery circuit in place and the Effluent Treatment Plant also is in place to treat the tailings. Giant would get maximum gold benefit if it could treat the residues generated from it's stored dust at home and if the arsenic purification was also done locally.

To recover underground stored material we must be able to load bulk haulage trailers on surface. To do this we might utilize the existing stope fill lines to blow underground dust into the existing surface load-out facility. The only piping required would be on the feed end underground. Our spare Fuller-Kinyon pump and the Fuller blower presently at Con could pneumatically convey the dust up. The major problem is to come up with an underground method of feeding the F-K pump. Geocon drilling program indicated the vast majority of the stored material is still the dry product as stored although compacted and frozen it still seemed to vacuum readily.