

MEMORANDUM

TO: K. Blower
CC: J. Moore
FROM: K. Morton
DATE: Sept 5, 1990
SUBJECT: MDA PROJECT, ARSENIC PRODUCTS
MANUFACTURING AND MARKETING

Our proposal for an MDA grant for this project has been approved and the government will pay \$37,500 towards this \$40,000 project. Blower's contribution will be largely in the form of internal costs such as supervision labour and lab testing.

The budget proposal permits some pilot testing of 5,000 which could be used to complete optimization of As₂O₃ product specification. The recently completed pilot program did not achieve good antimony removal efficiencies, even when operating with the finest filter media, and the data suggests that gaseous antimony may have been evolved due to excessive external heating of the "filter vessels".

A short duration pilot program operated under conditions designed to test this theory could be quite useful in determining final product specifications with respect to antimony oxides.

As for the rest of the project, I believe that almost all other arsenic products can be quickly eliminated from further study, with the exception of arsenic metal. This still has some possibilities, given the apparent simplicity of the production process and the market situation for the product. The U.S. uses some 1500 tonnes annually, most of which comes from China. In January of this year the price rose to \$US 4.70/lb from a normal \$0.80/lb because of cutbacks in Chinese production. It is possible that consumers would pay a premium price for an assured North American source of supply.

Treatment of arsenical residues in the proposed purification plant, for production of arsenic trioxide, could also be considered in the scope of the study. Such a facility could make our process much more attractive to a potential joint venture partner looking for a place to dispose of his residues.

I believe that useful information could come out of the study, in addition to the fact that a fair portion of my salary will be paid by the program. Should we proceed with the project?

