



THE APPLIED RESEARCH GROUP, INC.

Post Office Box 5471, Charlotte, North Carolina 28225/Telephone: 704-333-9408

January 17, 1985

CONFIDENTIAL

Mr. P. J. Raleigh
Falconbridge Limited
P.O. Box 40
Commerce Court West
Toronto, Ontario
M5L 1B4

Dear Pat:

Enclosed is our engineering analysis of the Code 68 Project that we will be meeting with you on next week. My intent was to have the proposal done on English rather than metric tons so the proposed operation is larger than originally intended. Growth opportunities in the CCA market have noticeably improved with 1985 data. So much so that if we're fortunate we'll need two of these plants in the next few years.

The profit figures in the report are based on cost prices for treaters who mix their own preservatives and will be less for the portion of sales that go to manufacturers such as Koppers and Osmose who have invested in arsenic acid plants and similar cost-cutting operations. Even at this most competitive level, profits will still be substantial with before tax payback for the entire investment of less than a year.

We are assuming that we will capture 40 to 50% of the present U.S. A. market or 20% to 25% of the world market over the next three years. This would require our present CCA volume plus one other major group: Koppers, Osmose, Mineral Research, Rentokil, Chemical Specialties or mix-their-own.

The treated lumber market is presently projected to grow by 50% over the next three years; growth of CCA poles could double CCA consumption; the All-Weather-Wood-Foundation (AWWF) is starting to grow and promises to increase CCA consumption by several hundred percent. In addition there are other markets for the copper arsenate compound which could decrease our dependence on the CCA market.

On page one you will notice that we presently expect the copper-arsenic compound that will be produced will require additional arsenic, as arsenic acid, to be added to the process in order to achieve the copper-arsenic

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ratios required for the "C" type CCA formulation. This is because copper arsenate has a higher copper to arsenic ratio than is specified for CCA-C. We expect this to be an advantage.

In my past marketing experience to major U.S.A. companies such as Koppers I have found an almost uniform reluctance to do anything that will imply that management has in the past made mistakes such as investing in an arsenic acid plant. Because we still require a small amount of arsenic acid, management still looks good and it will make our sale much more acceptable.

It is possible to produce a number of different copper to arsenic ratios. But I believe that even if the lab were to develop the "ideal" "C" version, that we will have an easier sale in one that supplements rather than out-modes our customer's present plants.

The report enclosed is entitled 68-B. The "B" designates our latest version of the process which we have developed over the last few weeks that will eliminate the sodium sulfate. Please note that in this report we have assumed a "greenfields" approach; i.e., we are buying land, grading, etc. Starting with an existing facility would reduce capital requirements. Please note that there is a substantial tax deduction made before the pay back time was calculated for this report.

Looking forward to having dinner with you and Dr. Emory Wednesday evening and being at your office on Thursday, January 24. Mr. Dan Cameron, our Chairman of the Board, Mr. Fred Gallagher and myself will be staying at the Royal York.

Sincerely,

THE APPLIED RESEARCH GROUP, INC.



William F. Drinkard
President

WFD/seb

Enclosure: 68-B Report