

Georgia Gulf

Georgia Gulf Corporation
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September 18, 1992

CANMET
Hesham Seoud, Ph.D. P.Eng.
555 Booth Street
Ottawa, Ontario K1A 0G1
Canada

Dear Hesham:

I have had a chance to review your proposal for an offer to join a consortium on tertiary recycling of plastics waste and find it interesting. As you may know, we are starting to hear a great deal of discussion on tertiary recycling in Europe and I am aware of activities in the U.S. Partnership for Plastics Progress.

I was interested to know if you have any current and future market information on the polyacetylene including value, consumption, and uses. I assume that you would generate an HCL stream that would be able to be fed back into the VCM manufacturing process.

Also, as you know vinyl is used in a magnitude of products and can be fabricated in combination with many materials as coatings and laminates. I was wondering if you had considered any other specific sources of PVC other than packaging as suitable for your work.

As this time, we have not made a decision on participating in this work. However, this requested information would be helpful in our consideration. Thank you.

Sincerely,

Frank E. Borrelli

R&S 144180



Energy, Mines and
Resources Canada

Énergie, Mines et
Ressources Canada

Canada Centre for
Mineral and Energy
Technology

Centre canadien de la
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Mr. Frank Borrelli
Manager
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U S A

October 2, 1992

Subject: Polyacetylene and CANMET's tertiary recycling of plastic wastes program

Dear Frank:

Thank you for your letter of September 18 in which you requested information pertaining to the future market of polyacetylene (PA). I must say that PA is being considered as a potential contender in the future market of polymer based batteries and at the moment, to the best of my knowledge, it is only at the developmental stage.

I did not respond promptly to your letters because I was trying to get some information on the world annual consumption of lead and zinc for battery applications. I have just received the information today and it is about 2.5 million tons. Assuming a lead/zinc to polyacetylene density ratio of 10, therefore, the maximum world market for PA cannot exceed 2 million tons. A possible figure for PA demands in the near future would be more in line with 0.1 percent of that figure, i.e. 2000 tons. These figures are just to give you an order of magnitude estimate. However, these numbers do not take into account the sharp increase in demands for batteries, if and when electric cars would become a consumer reality. They also assume that PA will be the winner in the race for polymer based batteries.

As to your question concerning the sources of PVC that are being considered in our research, we have conducted dehydrochlorination experiments on PVC used for cables as well.

Canada

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I hope that I responded clearly to the information you requested, and that it would be useful for your decision making process.

Sincerely



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