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CERAMIC INDUSTRY
5 South Wabash Avenue
Chicago 3, U.S.A.

May 11, 1955

Mr. Robert L. Ziegfeld
Lead Industries Association
420 Lexington Avenue
New York 17, New York

Dear Mr. Ziegfeld:

It is a pleasure to be able to work with you in this program to re-establish lead as a leading raw material in the ceramic industry.

Lead, as you know, is one of the finest fluxes for ceramic composition. It contributes properties to glasses, glazes, porcelain enamels and bodies which no other flux can duplicate.

In spite of its popularity in the '20's, when it reached its highest volume use in ceramics, today it is used to a much lesser degree. Scientists and ceramists all through the industry launched upon research to eliminate lead from ceramic compositions.

Enamels were first attacked and lead almost entirely eliminated. Glasses came next and successful elimination reached about 50% of the use. Lead in glass was eliminated except for some special uses.

But it must be remembered that in each case of elimination, properties of the final product have been sacrificed.

Lead was so completely in the hot house that schools stopped advocating it and teaching student's its properties. Industry forgot about it. The result is that today it is a forgotten raw material and its properties unknown. It is tolerated in some cases, but never sought out for its properties. A few companies loyal to lead have fought hard to keep it alive in the industry, but they fought a slowly losing battle. They are to be commended for their efforts and thanked for the little lead that is still being used.

The question must be asked, "Why has this occurred?" Probably there are three reasons "why":

1. ~~Lead poisoning~~
2. ~~Lead toxicity~~
3. ~~Lead availability~~

It was a fact that lead poisoning was an industry hazard and for that reason the elimination of lead was logical. But since that time much has been done by the ceramic industry and the lead industry to completely eliminate lead toxicity. Lead silicate, lead bisilicate, and lead aluminum silicate are compounds furnished by the lead industry to the ceramic field which are completely insoluble and safe to use. Dust collecting systems have been installed and are available which capture all dust and keep it away from workers. Do ceramists really know this and desire to do something about it?

Mr. Robert L. Ziegfeld

- 2 -

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Price of lead has always jagged back and forth and I suppose it always will and there is nothing that can be done about it. In fact, price is only a secondary deterrent to its use, for the properties lead gives the industries' products are worth the price. It must however be admitted that lead prices went up when the substitutes' prices went down.

Finally, lead availability has been juggled back and forth. This too is a difficult problem to solve, and is one that only you can solve for you understand it. It has however played a part in seeking substitutes for lead.

What, therefore, is need to re-establish lead in ceramics? There are two questions ceramic men must have answered:

1. How to use lead (a re-education)
2. Lead is not toxic (a reassurance)

It is my belief that should you satisfy the ceramicist on these two points, he will again incorporate lead in all his products and what is more important, he will seek its properties in solving some of his present day problems with new ceramics, such as architectural porcelain enamel panels, electronic ceramics, high temperature ceramic coatings, atomic ceramic applications, etc.

What can the industry do?

It is our suggestion that the lead industry launch an educational campaign to accomplish re-education and reassurance. A series of advertisements incorporating both ideas should be carried in CERAMIC DESIGNER by the Lead Industries Association. The educational and reassurance campaign should be supported by individual company advertisements to create an in fact campaign.

Imagine what an effect it would be on 5,000 ceramic men, executives, managers and scientists to see eight or ten messages every month directed to them on lead.

This letter will concentrate only on what the Lead Industries Association should do.

We recommend a series of ads with actual case histories (see samples).

You would go to a tile company and ask them to give you permission to publish a formula. You would talk about what lead does for this product. Then you would talk about the lead ingredient in it and its properties. You would end with assuring them that this compound is non-toxic.

The same procedure would carry stories on sanitaryware, porcelain enamel signs, glass etc. Each time the ad would give a formula, explain the use, talk about the lead product and assure its safe use.

Such a program we believe, could be accomplished for about \$7,500 in our magazine and could really be merchandised for another \$2,500.

Copies of the ads would be mailed out with covering letters. Talks would be given at meetings. Papers would be prepared for publication.

This, Mr. Ziegfeld, is our story in brief. We'll be glad to enlarge on it at any time.

Very truly yours,

J.J. Stoe
Assistant Publisher