

LEAD INDUSTRIES ASSOCIATION

60 EAST 42ND STREET

NEW YORK 17, N. Y.

February 3, 1960
Ref. LP-34-60

To All Members of the Pigments Committee, the
Charles S. Bennett Committee, and the Technical Steering
Committee of the Lead Industries Association

Gentlemen:

Subject: Eagle-Picher Company proposal entitled
"An Investigation of the Anticorrosive
Properties of Lead Pigments and Compounds
in Water Soluble Fuzing Metal Primers"

Attached is a copy of a communication which I have received
from Mr. Wilke of the Hammond Lead Products, Inc. which I feel should
be brought to everyone's attention. Mr. Wilke has some reservations
about the proposal and about the program which has been proposed.

With the exception of the comments from the Hammond Lead Prod-
ucts, Inc., all of the replies have been affirmative. There have
been no other comments or criticisms which could not be handled
satisfactorily in a preliminary meeting with the contractor should
the contract be awarded to the Eagle-Picher Company.

I hope that all concerned will carefully review Mr. Wilke's
comments as I know that he has given this a good deal of thought
and attention and his objective is to see that the research in
this area is for the full benefit of our industry.

If any members of the aforementioned committees have comments
to make, will you please address them to me so that we can accumu-
late them and send them on to Mr. Wilke? It is strongly urged that
your replies reach me in about fourteen days as we do not wish to
delay awarding of this contract any longer than is necessary.

Sincerely yours,

Charles S. Bennett

WFB:gm
attachment

COPY

COPY

RAMMOED LEAD PRODUCTS, INC.
5231 Robeson Avenue, Hammond, Indiana

January 22, 1960

Dr. Schrader F. Radtke
Director of Research
Lead Industries Association
60 East 42nd Street
New York 17, New York

Dear Dr. Radtke :

This will confirm our recent conversation concerning the proposal for investigation of THE ANTI-CORROSION PROPERTIES OF LEAD PIGMENTS AND COMPOUNDS IN WATER REDUCIBLE FERROUS METAL PRIMERS.

You will recall that I sent a telegram to you on December 16th requesting that further consideration be given this project.

It is our firm belief that a progressive, alert and effective research program is absolutely necessary to insure growth in the Lead industries and expand the uses for lead. As a matter of fact, as we all know, considerable work must be done to hold the markets which lead now has and to prevent loss of tonnage to competitive materials.

The proposal which was covered by your letter of December 6th should be reviewed in my opinion from several aspects.

(a) How much work has previously been done along the lines of the proposed investigation and have we received more than one proposal to make an investigation into the general subject?

(b) What is the prospect for increased tonnage of pig lead usage which might be expected from successful work on the project and what are the economic factors involved?

(c) Is the project one which will add to the fundamental, scientific knowledge of lead, lead compounds and their properties?

First of all let us discuss point (a). We note on page 4 of the proposal that under group 1 are listed eight basic lead pigments for complete testing in the proposed program. We know that some of these have already been tried out and discarded as valueless by major paint manufacturers who are working with water emulsion paints for use as anti-corrosion primers for steel. Furthermore, from our own experience, many of the pigments listed in this group do not merit testing. Group 2 has several interesting compounds, however, paint companies are so anxious to find a suitable pigment to be used in water emulsion paints for priming steel that they will be happy to evaluate these compounds as speedily as possible. Group 3 includes lead salts of organic acids and over half of these are trademark compounds made by one manufacturer and

COPY

-2-

COPY

already used as vinyl stabilizers. Again we believe that paint manufacturers would be happy to test those of greatest promise since the paint manufacturers are eager to develop the water based paints.

The value of testing the first four items listed under group 4 is indeed questionable in our opinion. Group 5 includes lead salts of more complex organic acids and we are not in a position to comment on this complex subject but we should comment that there are vast numbers of these organic acids, and I presume some careful study must have been given the selection of the five acids.

Group 6 deals with some normal lead compounds and "it is believed that several of this group may actually promote corrosion". We can agree wholeheartedly with this statement. We wonder what is to be gained by testing these eight compounds of little or no anti-corrosive properties.

Our second point suggests close examination of the economic justification of the project as presented. It is true that the Lead Pigments Technical Committee recommended an investigation of the Anti-Corrosive Properties of Lead Pigments and Compounds if funds were available. An optimistic estimate of possible yearly lead consumption was placed at 1250 tons per annum. This two year formulation, test fence and can stability program at a total cost of \$50,000.00 prompted my question of why the pig lead producers should pay for this.

Sophisticated lead chemicals of the type listed in group 3 and the "Dipbos" of group 4 are priced between 40 and 50¢ per pound. It would appear, therefore, that any formulation and test fence work should be the proper function of the pigment manufacturers who have the long margin and stand to gain the most from this work.

Our third point of inquiry (c) deals with the real value of a project to discover THE ANTI-CORROSION PROPERTIES OF LEAD PIGMENTS AND COMPOUNDS IN WATER REDUCIBLE FERROUS METAL PRIMERS. As pointed out above we are quite familiar with all of the lead chemicals listed in the proposal as submitted with the exception of the lead salts of the more complex organic acids. We are also testing some additional compounds which appear to have more promise than those enumerated.

A real service would be performed if the actual mechanism of the anti-corrosive properties of lead pigments and compounds in water reducible ferrous metal primers were known.

The proposal states "It is quite possible that to attain the optimum beneficial effect from any given lead compound would require an extensive formulation study beyond the scope of this project." We again agree fully with this observation.

An investigation into the theory of the anti-corrosive properties of lead pigments and compounds in water reducible ferrous metal primers would lead to a more intelligent selection of promising lead compounds rather than a testing program of a limited number of "off the shelf" lead compounds. As you know the total number of possible lead compounds

COPY

2

COPY

is so great that the list takes up 20 pages in LEAD IN MODERN INDUSTRY and there are many more not listed.

The type of study we suggest may lead to uses of lead compounds not now made commercially and may suggest uses not now contemplated.

During the September 1959 Lead Pigments Technical Committee meeting, the possibility of placing the formulation and testing work with a large paint company was discussed. I understand that the idea was discarded because of discrimination possibilities. It was thought that the \$50,000.00 grant would give unusual advantages in educating water emulsion paint chemists for an individual company. We do know, however, that the major paint companies do have some qualified personnel in the water emulsion paint field.

We at Ramond Lead appreciate the research program being carried out by the LIA. Our comments on the program in question are presented in the spirit of maintaining the wholehearted support and confidence of all segments of the LIA.

Yours very truly,
RAMOND LEAD PRODUCTS, INC.

S/M. F. Wilke III
Secretary-Treasurer

WFW:lr