

LEAD INDUSTRIES ASSOCIATION

60 EAST 42ND STREET

NEW YORK 17, N. Y.

SUBJECT TO REVISION

INDUSTRY DEVELOPMENT COMMITTEE MEETING MINUTES

New York, N. Y.

April 3, 1958

A meeting of the Industry Development Committee of the Lead Industries Association was held at the office of the Association on Thursday, April 3, 1958.

Present

J. J. Lennon
W. B. Clancy
S. E. Sweet

R. M. Cutting
A. R. Mera
Robert Hendricks

C. R. Ince
G. H. LePevre

Representing

The American Metal Climax, Inc.
American Smelting & Refining Co.
Broken Hill Associated Smelters Pty Ltd.
(C. Tennant, Sons & Co., Agents)
The Bunker Hill Co.
Cerro de Pasco Corp.
Consolidated Mining & Smelting Co. of
Canada, Ltd.
St. Joseph Lead Co.
United States Smelting Refining &
Mining Co.

Robert L. Ziegfeld, Secretary-Treasurer

The meeting was called to order at 2:00 P.M.

The minutes of the previous meeting of November 14, 1957 were approved.

REPORT OF THE SECRETARY

The secretary presented a progress report on the programs approved by the Industry Development Committee, attached as Exhibit "A."

CERAMIC STATISTICS

In discussing the appropriations which had already been made for research in ceramics it was suggested that the secretary attempt to get from lead manufacturers supplying materials to the ceramic industry accurate reports semi-annually or annually on the consumption of lead in ceramics. It was felt that this would be a helpful guide to the Industry Development Committee in considering future appropriations for this work.



Industry Development
Committee Minutes

-2-

April 3, 1958

RESEARCH

The committee then proceeded to a discussion of the recommendations of the Technical Steering Committee for the additional research as embodied in the memorandum attached as Exhibit "B."

It was explained that any funds approved at this meeting would be subscribed on the basis of sales of pig lead in the United States in accordance with Industry Development Fund practice in the past. It was further explained, however, that when the new expanded joint research facilities with the American Zinc Institute had been set up, and were in full operation, the research being conducted by the Lead Industries Association would in the main be transferred to the new research organization at such time as the Industry Development Committee and the Technical Steering Committee considered it advisable.

It was also pointed out that the appropriation now being considered was in addition to the appropriations approved last Fall necessitated by the fact that the Battelle report was not ready for evaluation at that time and that action last Fall was with the realization that further recommendations would be received when the Technical Steering Committee had had an opportunity to study the Battelle report. Consequently, any appropriation approved at this meeting would be in addition to the \$27,000 approved for industry development at the November 14, 1957 meeting, and later approved by the Board of Directors on December 2, 1957.

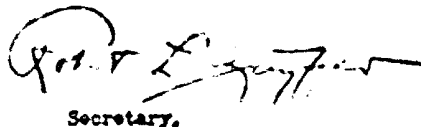
The committee then discussed and acted upon each recommended item individually and approved the appropriation of an additional \$103,000 for research as recommended by the Technical Steering Committee, and outlined in Exhibit "B."

EXHIBIT AT DESIGN ENGINEERING SHOW

The secretary then pointed out the desirability of exhibiting at the Design Engineering Show in 1959, stating that contracts for space would probably be received during 1958 and in order to obtain desirable space he would like to be in a position to contract for space as soon as the contracts were received.

The committee approved an appropriation from reserves of \$2500 to \$5000 for an exhibit at the Design Engineering Show in 1959, the amount depending upon whether the Association's present exhibit could be adequately refurbished or whether a new exhibit would have to be built.

Meeting adjourned at 3:45 P.M.



Secretary.

Exhibit "A"

PROGRESS REPORT

This is to inform you of the steps taken to date to put into effect the enlarged promotional and research program approved by this Committee and the Board of Directors for 1958.

We were authorized to increase our technical service activities by the addition of another man. This has been done with the employment of Mr. Sid W. Turner, a young metallurgical engineer, formerly employed by Curtiss-Wright and R.C.A. He started with us on February 17th.

We have entered into a contract for a study of the use of lead in building construction by the architectural and engineering firm of Skidmore, Orings and Merrill. Their study started about the middle of January and an interim report will be made by them at our annual meeting. The first phase of their study, which is all that has been authorized, should probably be completed sometime in May.

Pending receipt of this report our metallic lead products activities have continued on the same basis as last year with the expectation that they will be reviewed after the report has been studied by us. In the meantime we exhibited at the annual Home Builders Show, and contracted for exhibit space at the Plumbers' Show and the Chemical Show.

In our ceramic program arrangements for five of the nine graduate research fellowships approved have been made. These are two at Rutgers, two at the University of Illinois and one at Pennsylvania State. Negotiations are in progress for the one to be placed at Alfred University. Since most of these will start in the Fall there is ample time to complete the other arrangements.

As of March our advertising schedule was increased to include four instead of two ceramic publications. A new four-page supplement to our ceramic data book, "Lead in the Ceramic Industries," was distributed. The twenty permanent exhibits to be placed in universities with accredited ceramic schools were completed and have been offered to the schools.

In red lead we have employed a half-time technical service engineer in the field, Mr. Owen F. Shobe, who was retired after 39 years in a similar capacity with the Glidden Co. He has been a member of our Red Lead Technical Committee ever since it was formed in the early 1940's and is also a member of the Research Committee of the Steel Structures Painting Council. Mr. Shobe has already made valuable contacts for us with a number of state, county and city highway departments, associations of highway officials, and also is maintaining our relations with the Navy, Corps of Engineers and other Government agencies.

Our red lead advertising schedule has been increased from 6 black-and-white pages in "Engineering News-Record" last year to 11 two-color pages this year which started in February. A new series of exposure tests is being started immediately which will test red lead with additions of lead silico-chromate as developed by National Lead Co. and red lead with additions of a quick-drying additive developed by the Glidden Co.

Exhibit "A"

-2-

Progress Report

To increase our knowledge and ability to be of service in the atomic field our new technical service man is also being secret "Q" cleared as well as Mr. Mullarkey, who already is.

Although we have been authorized to increase the mailing list for our magazine "Lead" we are not planning any major changes until the Skidmore Report is received and we can determine how much emphasis to put on the construction industry.

A series of conferences have been held with our advertising agency's publicity department and a definite schedule for increased publicity has been outlined.

Respectfully submitted,

Robert L. Ziegfeld

Secretary.

Exhibit "B"

Technical Steering
Committee Meeting Minutes

Exhibit "B"

SUBJECT: RESEARCH
BUDGET RECOMMENDATIONS

TO: Industry Development Committee

FROM: Technical Steering Committee

Under date of February 21, 1958, the Technical Steering Committee submitted for the information of the Industry Development Committee a memorandum containing its evaluation of the Battelle report in general and of specific Battelle proposals contained in that report. The T.S.C. is now submitting for consideration specific research budget recommendations based both on that report and other subjects that it has had under consideration.

In so doing, it would like to point out that careful consideration has been given to a proper balance between applied and basic research. It feels that this ratio must be flexible because basic research must necessarily feed applied research. Obviously therefore at the outset, greater emphasis will have to be on basic research until it develops more areas for applied research. The T.S.C. expects to watch this relationship continuously to be sure that the balance is properly maintained in accordance with conditions prevailing at any time.

The T.S.C. expects to submit additional recommendations from time to time as further data are developed on the many Battelle proposals which require further study. These may include but would not be limited to the fourteen proposals contained in B-1, B-2 and B-3 of the February 21 memorandum and other projects which L.I.A. has under study.

In the following budget tabulation, the nine ceramic fellowships already approved at \$27,000 for 1958 are included. All cost figures listed are estimated and subject to negotiation with various qualified research organizations. They are also considered to be maxima for the work immediately contemplated. The contingency fund is provided to take care of situations which might require prompt action as the result of information developed during the course of the projects approved.

The T.S.C. recommends that the I.D.C. approve the appropriation of funds for one year for the projects in the following tabulation not already approved. Approval would be with the understanding that the costs shown for individual projects would not exceed those listed without further authorization and that no research contracts would be consummated without the approval of the T.S.C. or

-2-

its duly authorized representatives. In the latter connection it should be pointed out that the T.S.C. has appointed competent subcommittees to supervise the planning, contracting and conduct of each project or group of projects.

RESEARCH BUDGET, 1950

ALREADY APPROVED

1. Ceramics

a. Ceramic bodies	
Two fellowships at Rutgers	\$6,000
b. Porcelain enamels	
Two fellowships at Illinois	6,000
c. Glasses	
One fellowship at Ohio State	3,000
d. Phase Diagrams	
One fellowship at Penn State	3,500
e. Glass	
One fellowship at Alfred	3,000
f. Glazed brick	
One fellowship at Clemson	2,500
g. Ferroelectrics	
One fellowship at California	<u>3,000</u>

Total Already Approved

\$27,000

(The foregoing are under the supervision of the Ceramics Technical Committee.)

RECOMMENDED FOR APPROVAL

1. Applied Research

- a. Reinforced lead and lead alloys. (February 21 memo A-1-a).
Owens-Corning Fiberglas Corp. has already spent some \$10,000 to \$20,000 in developing a method of reinforcing lead with glass fibers, the product indicating certain improved physical properties. Upon our offer of cooperation, they have suggested that tests be run in our member laboratories on samples supplied by them. The cost to determine whether additional research would be ad-

- 3 -

visable should be moderate; therefore it is recommended that this procedure be followed at a cost which will undoubtedly be only a fraction of the total mentioned in the Battelle report. This should not exceed the figure shown on the right to develop sufficient information to determine the future course of the work, if any

\$5,000

(The foregoing would be under the supervision of a subcommittee composed of A.J. Phillips, American Smelting and Refining Co. and Richard P. Hermsdorf, American Metal Climax, Inc.)

- b. Heat emissive properties of lead compounds. (Not included in February 21 memo.)
This was not covered by the Battelle report but has been developed through other L.I.A. contacts. There is good evidence that lead compounds have properties that might be extremely useful in commercial heating and cooling applications, and these properties have been exploited only to a very limited extent. However, a program study is needed to determine its wider applicability.

\$10,000

(The foregoing would be under supervision of the L.I.A. staff with the guidance of Roy Dahlstrom, National Lead Co.)

Total Recommended Applied Research

\$15,000

2. Basic Research

- a. Lead alloys - general research. (February 21 memo A-2-a).
b. Powder metallurgy of lead and lead alloys. (February 21 memo A-2-b).
c. Improvement of mechanical properties of lead with insoluble metals by suspension in the mushy state. (February 21 memo A-2-c).

All three of the foregoing, a, b and c, should start with a review of the literature and present knowledge and reference to similar work underway by others.

\$50,000

(The foregoing would be under the supervision of a subcommittee composed of A.D. Turnbull, The Consolidated Mining and Smelting Co. of Canada, Ltd., chairman, and I. L. Barker, Cerro de Pasco Corp.)

- d. Lead chelates and their applications. (February 21 memo A-2-d).

-4-

- e. Perfluorinated organolead compounds. (February 21 memo A-2-e).
- f. Lead oxide condensation products with organic materials. (February 21 memo A-2-f).
- g. Lead hydrides - properties and applications. (February 21 memo A-2-g).

These four projects, d, e, f and g, would be pursued primarily through one or more graduate research fellowships in each category.

\$25,000

(The foregoing would be under the supervision of a subcommittee composed of Roy Dahlstrom, National Lead Company, chairman, and Y. E. Lebedeff, American Smelting and Refining Co.)

Total Recommended Basic Research	\$75,000
Contingency Fund	<u>\$13,000</u>
Total Research, 1958	\$130,000

RECAPITULATION OF RESEARCH BUDGET, 1958

Items Already Approved and Subscribed	\$27,000
---------------------------------------	----------

Items Recommended for Approval:

Applied Research	\$15,000	
Basic Research	75,000	
Contingencies	<u>13,000</u>	<u>\$103,000</u>
Total Research, 1958		\$130,000

Respectfully submitted,

Technical Steering Committee
Harold E. Lee, Chairman

By:

Robert L. Ziegler
Secretary