

LEAD INDUSTRIES ASSOCIATION

450 LEXINGTON AVENUE

NEW YORK 17, N. Y.

RED LEAD DIVISION

FINAL DRAFT
CONFIDENTIAL
SUBJECT TO REVISION

RED LEAD TECHNICAL COMMITTEE

New York, New York

March 24, 25, 1949

A meeting of the Red Lead Technical Committee of the Lead Industries Association was held on March 24, 25, 1949 in the office of the Association, New York, New York. The following persons were in attendance:

Present

Mr. George Diehlman
Mr. A. C. Goets
Dr. J. O. Johnstone
Mr. O. F. Shobe

Representing

National Lead Company
Eagle-Picher Company
Hammond Lead Products, Inc.
The Glidden Company

Dr. L. L. Carrick, Director of Red Lead Research, Meeting Chairman
Mr. Robert L. Ziegfeld, Secretary, Lead Industries Association
Mr. C. J. Vander Valk, Technical Director.

REPORT ON STATUS OF PROPOSED FEDERAL SPECIFICATION TT-P-86a ON RED LEAD PAINTS

The meeting was begun at 10:00 A. M. on March 24 with a report on the status of the proposed Federal Specification TT-P-86a on red lead paints. The Technical Director informed those present that the draft of June 17, 1948 with a few revisions and changes had received the final approval of the Federal Specification Board on February 17, 1949. The Committee was also told that Mr. Nickson, Chairman of the Federal Specification Board, expected this new specification to be available in about sixty days from the approval date.

It was also reported that after circulation of the final draft to the various departments, the Corps of Engineers requested the inclusion of a statement in Paragraph 1a1e, describing the intended uses for Type IV, excepting the use of Type IV paint for the painting of potable water storage tanks because of possible toxic effect of dissolved lead compounds.

To refute this suggestion, Mr. Nickson was informed of the latest recommended practices of the American Water Works Association, recommending the use of Type IV paint for potable water storage tank interiors, and was also reminded that the majority of potable water storage tank interiors had been painted with red lead for many decades with no apparent ill effects.



R. L. T. C. Meeting
Minutes

-2-

March 24, 25, 1949

Also, at the request of the Technical Director, Mr. Bowditch, Safety and Hygiene Director of the Lead Industries Association, canvassed the Committee On Lead Poisoning of the American Public Health Association, on the advisability of excluding red lead base paints as coatings for potable water tank interiors. Written opinions were received from all but one of the members of the Committee On Lead Poisoning to the effect that the specification of red lead paints for potable water tank interiors should be continued until scientific investigation has proven this a hazardous practice. Copies of these written opinions were given to Mr. Rickson for consideration at the meeting of the Federal Specifications Board.

The Red Lead Technical Committee was informed that the Board had decided to omit from Paragraph 1-1C the Clause qualifying the use of Type IV paint for water storage tanks. However a similar clause, excepting Type IV paint for potable water tank interiors was approved for inclusion under specific Army requirements in the section dealing with the requirements applicable to individual government departments.

FIRST REPORT FOR PUBLICATION ON L.I.A. ATMOSPHERIC PROGRAM

A proposed draft for publication of Report No. 1 was reviewed by the Committee. This draft contained all of the revisions agreed upon at the previous meeting on December 17, 1948.

It was decided to revise the Report as follows:

- 1) To include the appropriate file designation of the American Institute of Architects on the front cover of the binder along both the bound and open edges.
- 2) To replace the term "test site" with "exposure site" throughout the entire text.
- 3) To describe the New Orleans exposure site as "rural" instead of "semi-industrial."
- 4) To include a table in the report listing and describing the government specifications applicable to the Comparison Primer Paints.
- 5) To indicate drier additions to the resin and oil combinations following the table of resin and oil combinations rather than in the table of primer paint compositions. This was done to permit a complete summation of the vehicle in each primer paint under investigation with only two values. These are the "Oil and Resin Combination" and the quantity of petroleum spirits required to adjust each paint to a consistency or viscosity of 80 Krubs Units.

R. L. T. C. Meeting
Minutes

-3-

March 24, 25, 1949

To expedite the early publication of this initial descriptive report it was agreed that the preparation of the final draft incorporating the above additions and any necessary editorial refinements be handled by a sub-committee consisting of Mr. Diehlman, Mr. Ziegfeld and the Technical Director.

CONSIDERATION OF PROPOSED DRAFT OF NEW RED LEAD TECHNICAL LETTER.

A draft of Red Lead Technical Letter No. 4 entitled "Red Lead Paints For Marine Exposure" was received by the Committee. A copy of this draft is attached to these minutes as Exhibit A.

The inclusion of the first eleven formulations in the draft was approved by the Committee. However, it was agreed to eliminate the vinyl anti-corrosive paint formulation (Formula 4-12). It was considered advisable to reserve the inclusion of vinyl systems in Red Lead Technical Letters until applicable government specifications have been published on red lead vinyl paints.

The addition of L. I. A. Paint 116 to the formulas for marine atmospheres was suggested and received the committee's approval. This paint showed the best performance among those exposed thirty inches above high tide level in the Bayville Marine Basin. This paint has the following composition:

Red Lead (97% Grade)...	56.0%
Litharge.....	14.0
Graphitic Mica.....	30.0
	100.0%

L.I.A. Vehicle No. 27.	71.5%
Petroleum Spirits.....	27.1
Driers.....	1.4
	100.0%

Pigment =	51.5%
Vehicle =	45.5%
PV =	13%

Because of the high proportion of litharge it was decided to include this in the Technical Letter as a two compartment container paint with instructions for the addition of the litharge immediately prior to application.

To avoid excessive repetition the Technical Director was instructed to include statements pertaining to surface preparation and suitable topcoat paints at the beginning of each of the three sections on marine atmospheric, intermittent immersion, and complete submersion rather than with each individual paint formula.

Also to include a note for each suggested formulation giving details to aid the reader in deciding the appropriateness of the formulation for his specific applications. Also to include L.I.A. suggested preferences for the use of each suggested formulation.

R. L. T. C. Meeting
Minutes

-3-

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Driers.....	1.4
	100.0%

Pigment	= 54.5%
Vehicle	= 45.5%
TV	= 11%

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R. L. T. C. Meeting
Minutes

March 24, 25, 1949

The Technical Director said he would include the suggested changes in a second draft for the consideration of the committee members at the next meeting.

GAS HOLDER PAINTS

At the Red Lead Technical Committee meeting held on December 17, 1948 six primer paints were formulated for cooperative service test projects on gas holders. Since these formulations consisted of revisions of existing L.I.A. primers, it was considered essential to test their practicability in the laboratory before submitting samples to cooperating gas companies. Mr. Dickman and Mr. Shobe each agreed to prepare three paints.

It was reported that the laboratory tests were in progress and that paint samples for submission to cooperators could be prepared in the near future.

Mr. Goetz, Mr. Shobe and the Technical Director stated intentions of arranging cooperative tests in the near future with operators of gas holders in a few well distributed geographic locations.

DISCUSSION OF TECHNICAL ARTICLE ON RED LEAD PRIMERS FOR "IRON AGE"

A draft of a proposed article for publication in the magazine Iron Age was submitted to the committee for comment.

This article tells about the extensive service test work carried out by the Lead Industries Association through the Red Lead Technical Committee to develop improved primer paints for all types of ferrous metal surfaces exposed to a wide variety of environments. A few of the outstanding red lead base primer formulations for inland and marine atmospheric exposures are described in detail.

R. L. T. C. Meeting
Minutes

-5-

March 24, 25, 1949

Considerable introductory matter precedes the presentation of the improved red lead primer formulations. This includes a review of the great destruction and wastes resulting from failure to adequately protect iron and steel exposed to ordinary atmospheric and unusually corrosive environments. It also includes discussion of the merits of different surface preparations and surface treatment methods.

The committee recommended that the article be revised by:

- 1) eliminating the statements pertaining to the great losses suffered by the failure to adequately protect exposed ferrous surfaces. This was considered too well known to require further comment in another article.
- 2) describing the new improved primer paints in the early part of the article before commenting on surface preparation.
- 3) eliminating comparisons with zinc chromate base primers.

On the basis of these recommendations another draft of the proposed article will be prepared and submitted to the Committee members for approval.

NEXT MEETING

It was decided to hold the next meeting of the Red Lead Technical Committee at Sayville, Long Island on May 2 and 3, 1949. This meeting will be held for the purpose of inspecting all of the L.I.A. test specimens on exposure at Sayville.

The meeting was adjourned at 5 P. M. on March 25.

C. J. Vander Valk
Technical Director