

LEAD INDUSTRIES ASSOCIATION

AND LEXINGTON AVENUE 60 East 42nd Street
NEW YORK 17, N. Y.

Pigments and Chemicals Division

SUBJECT TO REVISION

RED LEAD TECHNICAL COMMITTEE MEETING MINUTES

New York, N.Y.

March 3, 1958

A meeting of the Red Lead Technical Committee of the Lead Industries Association was held in the offices of the Association on March 3, 1958.

PRESENT

L. L. Carrick, Chairman
W. J. Hughes
J. O. Johnstone
R. P. Bates
R. K. Zimmermann

REPRESENTING

Lead Industries Association
The Eagle-Picher Co.
Hammond Lead Products, Inc.
National Lead Co.
National Lead Co.

Robert L. Ziegfeld, Secretary-Treasurer
David M. Borcina, Secretary to Committee
O. F. Shobe, Consultant to L.I.A.
Manfred Bowditch, Director of Health and Safety

The meeting was called to order at 9:30 A.M. with Dr. Carrick presiding.

The minutes of the previous meeting of December 6, 1957, were approved.

PROPOSED REVISION TO AMWA SPECIFICATION D-102-55T

The chairman then requested Manfred Bowditch to report on the recent developments with respect to the proposed revision in AMWA Specification D-102-55T, insofar as the question of toxicity of the paint now included was concerned. Manfred Bowditch then stated that the American Water Works Association was attempting to develop a program which would involve testing waters for lead content in a number of new water tanks that may be built this summer. It is the AMWA hope that a sufficient number of new tanks in the states from Illinois across to the Massachusetts coast will be included in the test program.



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With respect to the tests made of the water samples from the four tanks painted with red lead-linseed oil paint, the location of which was supplied L.I.A. by National Lead Company, Manfred Bowditch reported that three of the four tanks showed lead well within permissible limits while the fourth showed excessive lead. Upon investigation, it was determined that this fourth tank is not in active service but is held available for standby purposes only and would be put into use only in the event of fire at which time the water would be greatly diluted through the addition of fresh water. Further, the paint in this tank is admittedly in poor condition.

PROPOSED TEST PROJECT - RED LEAD AND VARIOUS CHROMATE
MIXTURES

At the request of the chairman, Mr. Shobe reported on his field visits and stated that he has been asked for specific recommendations on the lead silico-chromate type of paints and requested the committee's suggestions. He further presented for the committee's approval a proposed Red Lead Technical Letter (Exhibit "A" distributed to the committee at the meeting) which includes formulations containing the lead silico-chromate type of pigment plus a new wetting additive developed by The Glidden Company.

After some consideration, it was the committee's opinion that requests for specific recommendations be handled as per the formulations contained in the proposed "Technical Letter." It was pointed out that the committee has long recommended mixed pigment formulations incorporating pigments other than red lead.

On the other hand, the committee felt that publication of a "Technical Letter" in which the lead silico-chromate pigment and the new wetting additive were incorporated in the paint formulations be delayed until a test program could be evaluated. It was the committee's opinion that such a project be started immediately and that it be assigned the number L.I.A. Project 26. For details, see Exhibit "B" attached. The paints with the wetting additive are to be supplied by The Glidden Company and those without by the National Lead Company.

REPORT OF CHAIRMAN ON S.S.P.C. MEETING
February 11, 1958

The chairman reported that though the subject of painting the interior of water tanks with red lead was on the agenda of the February 11, 1958, meeting of the Steel Structures Painting Council, it was not discussed nor was any reference made to it during the meeting.

AMINE D DERIVATIVES AS A RUST INHIBITOR

The secretary presented to the committee the correspondence with Hercules Powder Company on the results of their research on the rust inhibitor properties of Amine D derivatives when incorporated into primer paints.

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After some discussion, the committee felt that the data did not reveal anything that was not already known and the secretary was requested to reply to the letter.

PROPOSED RED LEAD TECHNICAL LETTER

It was the opinion of the committee that the issuance of the proposed Red Lead Technical Letter that would be a compilation of all previous letters be delayed. The secretary was however requested to proceed with the issuance of the following two Technical Letters."

1. Painting of rusted galvanized steel, new galvanized steel, and aluminized steel with L.I.A. Paint 361, Formula 9-1 to be recommended.
2. L.I.A. Paint 328 performance as a shipbottom paint. No reference to U.S. Navy is to be made.

NEXT MEETING DATE

The next meeting was tentatively scheduled for May 8 and 9, 1958, at Sayville, L.I., N.Y., the committee to meet the evening of May 7, 1958 and proceed to Sayville.

There being no further business, the meeting adjourned at 4:45 P.M.

David M. Borcina

David M. Borcina
Secretary, Red Lead Technical Committee

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Exhibit "B"

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L.I.A. PROJECT 26SCOPE:

To evaluate the new lead silico-chromate pigments and The Glidden Company's new wetting additive.

TEST SITES:

Sayville, Perth Amboy and Joplin.

TEST SPECIMENS:

Sandblasted flat steel panels.
Rusted flat steel panels.

EXPOSURE:

45 degrees.

PAINTING SYSTEM:

One coat primer, with and without additive.
One top coat over half the panel.

L.I.A. PAINT NO. 2601:

TT-P-85a - Type I.

L.I.A. PAINT NO. 2602:

TT-P-85a - Type I with additive.

L.I.A. PAINT NO. 2603:

TT-P-86a - Type II.

L.I.A. PAINT NO. 2604:

TT-P-86a - Type II, with additive.

L.I.A. PAINT NO. 2605:

TT-P-86a - Type III.

L.I.A. PAINT NO. 2606:

TT-P-86a - Type III, with additive.

L.I.A. PAINT NO. 2607:

TT-P-86a - Type IV.

L.I.A. PAINT NO. 2608:

TT-P-86a - Type IV, with additive.

L.I.A. PAINT NO. 2609:Orange Primer

<u>Pigment</u>	<u>Pounds</u>	<u>Gallons</u>
Basic lead silico-chromate	1,000.0	29.32
Bentone 34	6.0	0.40

Vehicle

Raw linseed oil	309.0	40.00
Long oil alkyd resin (70% solids)	112.0	14.00
Mineral spirits, driers	92.9	13.64
TOTAL	1,519.9	97.36

L.I.A. PAINT NO. 2610:

L.I.A. Paint No. 2609, with additive.

N2766.01

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L.I.A. PROJECT NO. 26 (CONTINUED)

L.I.A. PAINT NO. 2611:

Crystallized Red Lead

<u>Pigment</u>	<u>Per Cent</u>	<u>Pounds</u>	<u>Gallons</u>
Red lead (97% grade)	60	661.00	9.00
Basic lead silico- chromate	20	220.80	6.47
Acicular zinc oxide	5	54.70	1.17
Asbestos	15	160.00	6.74
Bentone 34	Trace	5.85	-.39
		100.00	

Vehicle

Alkyd varnish	37.6	218.40	27.30
Raw linseed oil	17.7	103.50	14.20
Phenolic resin-varnish	18.7	108.50	14.20
Aromatic mineral spirits	15.6	91.00	12.72
Cellosolve	9.1	52.70	6.86
Causalcol (anti- skinning agent)	0.4	2.90	0.29
Cobalt octoate drier (6% cobalt)	0.22	1.45	0.18
Lead naphenate drier (24% lead)	0.38	2.40	0.24
Manganese naphenate (6% manganese)	0.30	1.92	0.24
		100.00	1,685.22
			100.00

L.I.A. PAINT NO. 2612:

L.I.A. Paint No. 2611, with 17.7 per cent -
103.5 pounds - 14.20 gallons of wetting additive
to replace raw linseed oil.

L.I.A. PAINT NO. 2613:

Red Lead - Asbestos

<u>Pigment</u>	<u>Per Cent</u>
Red lead (97% grade)	90.0
Asbestos	10.0
	100.0

Vehicle

Alkyd varnish	37.6
Raw linseed oil	17.7
Phenolic resin-varnish	18.7
Aromatic mineral spirits	15.6
Cellosolve	9.1
Causalcol (anti-skinning agent)	0.4
Cobalt octoate drier (6% cobalt)	0.22
Lead naphenate drier (24% lead)	0.38
Manganese naphenate (6% manganese)	0.30
	100.00

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L.I.A. PROJECT 26 (CONTINUED)

L.I.A. PAINT NO. 2614:

Red Lead - Asbestizing

L.I.A. Paint No. 2613, with 17.7 per cent wetting additive to replace raw linseed oil.

L.I.A. PAINT NO. 2615:

Aluminum Top Coat

<u>Pigment</u>	<u>Per Cent</u>	<u>Pounds</u>	<u>Gallons</u>
Aluminum paste (65% NV)	100.0	206.0	16.8
<u>Vehicle</u>			
Phenolic resin	31.1	197.75	25.85
Alkyd varnish	30.8	196.40	24.55
Wetting additive	9.0	56.81	7.74
Xylol	19.1	121.07	16.7
Diacetone alcohol	9.2	58.44	7.7
Anti-skinning agent	.2	1.32	.165
Cobalt octoate drier (6% cobalt)	.2	1.32	.165
Manganese naphthenate (6% manganese)	.2	2.64	.33
	100.0	843.75	100.00