LEAD INDUSTRIES ASSOCIATION
~~420 LEXINGTON AVENUE~~ 60 East 42nd Street
NEW YORK 17, N. Y.
Pigments and Chemicals Division

SUBJECT TO REVISION

RED LEAD TECHNICAL COMMITTEE MEETING MINUTES

Sayville, L.I., N.Y. May 8 and 9, 1958

A meeting of the Red Lead Technical Committee of the Lead Industries Association was held at the National Lead Company's Paint Testing Station in Sayville, L.I., N.Y., on May 8 and 9, 1958.

PRESENT	REPRESENTING
L. L. Carrick, Chairman	Lead Industries Association
N. E. Elmore	The Bunker Hill Co.
Paul Whitford	The Eagle-Picher Co.
J. O. Johnstone	Hammond Lead Products, Inc.
R. P. Bates	National Lead Co.
C. A. Lominska	National Lead Co.
E. K. Zimmermann	National Lead Co.

David M. Borcina, Secretary to Committee
O. F. Shobe, Consultant to L.I.A.
Sid W. Turner, Lead Industries Association

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

The minutes of the previous meeting of March 3, 1958, were approved.

INSPECTION OF ACTIVE L.I.A. PROJECTS

The committee then proceeded to inspect all active L.I.A. projects on exposure at Sayville and had the following comments to report:

L.I.A. Project No. 19 - Primers for Galvanized Steel

The secretary reported that at last year's inspection, 5 years exposure, L.I.A. Paint No. 361, pigment No. 10-Vehicle No.20 appeared to be performing excellently and was selected by the committee for use in a future "Technical Letter." Investigation at this time revealed after six year's exposure that L.I.A. Paint No. 362, Pig. 10-Vehicle 30 was performing even better than L.I.A. Paint No. 361.

N2764

It was therefore recommended that L.I.A. Paint No. 362, Fig. 10-Vehicle 30 be used in the proposed "Technical Letter."

L.I.A. Project No. 23 - The committee reported that they did not have copies of the paint formulations in this test and requested the secretary to attach these data to the minutes. Attached as Exhibit "A."

L.I.A. Project No. 24 - The committee suggested that the test be continued with the following changes:

Florida panels be placed out at Sayville.
Perth Amboy panels be returned for further exposure.

Failure was complete on rusted-mill scale panels and it was recommended that they be removed from test.

The committee requested C. A. Lominska to take color transparencies of the panels in Project No. 24 and the secretary to have color prints made for distribution to the committee.

FUTURE FIELD INSPECTIONS

It was pointed out that the present method of inspecting all panels in all projects by the committee was time-consuming, and in most instances, unnecessary.

As a result, a motion was made, seconded and unanimously approved that all future field inspections by the committee be confined only to those panels that are performing satisfactorily. It was generally agreed that C. A. Lominska at Sayville and his counterpart at other testing stations inspect the panels prior to a meeting of the committee, and then have readily available only those panels that are performing satisfactorily.

The meeting was thereupon recessed at 6:15 P.M., to reconvene the next morning at 9 A.M.

At 9 A.M., May 9, 1958, the meeting was again called to order by the chairman with the same committee members and L.I.A. representatives in attendance.

AVAILABILITY OF NEW WETTING ADDITIVE

The question was raised as to the future availability to all paint manufacturers of The Glidden Company's new wetting additive which is incorporated into some of the paint formulations in L.I.A. Project No. 26. The committee thereupon requested Mr. Shobe to clarify this point as soon as possible.

(Mr. Shobe subsequently discussed this with Mr. A. D. Duncan, vice president, The Glidden Company, and a carbon copy of a letter, dated May 19, 1958, to Mr. Shobe from Mr. Duncan was received by the Association and is attached as Exhibit "B.")

REVIEW OF L.I.A. PROJECT NO. 26

The secretary reported that he had notified the committee that Glidden's new wetting additive did not appear to be compatible with the TT-P-86a, Type IV Paint (L.I.A. Nos. 2607 and 2608) and recommended it be excluded from the project.

After some discussion, the committee felt that this paint, inasmuch as it is a specification paint, should be included, and requested Mr. Shobe to attempt to prepare paints L.I.A. Nos. 2607 and 2608.

It was also recommended and the committee concurred that all paints in L.I.A. Project No. 26 be placed in humidity cabinets and the following procedure was established:

1. All paints applied to clean steel.

2. The following paint systems applied to rusty surfaces:

   L.I.A.Paint No. 2605 primer plus 2 coats TT-P-86a, Type IV
   L.I.A.Paint No. 2612 primer plus 2 coats TT-P-86a, Type IV
   L.I.A.Paint No. 2614 primer plus 2 coats TT-P-86a, Type IV
   L.I.A.Paint No. 2617 primer plus 2 coats TT-P-86a, Type IV

   Paint thickness 4 - 5 mils.

The test is to be conducted at National Lead Company.

L.I.A. PROJECT NO. 27

As a result of the inspection of L.I.A. Project No. 21 and the results that seem to be indicated, the committee unanimously approved the establishment of L.I.A. Project No. 27, to test various wash primers and anti-corrosive primers in sea water, total immersion and tide range, and fresh water. An outline of the project is attached as Exhibit "C."

PROPOSED REVISION TO AWWA SPECIFICATION D102-55T

The chairman reported that he had attended a meeting of the American Water Works Association at which the revision of AWWA Specification D102-55T had been discussed. He stated that it was his understanding that this committee recommended that field tests of the various paints under consideration be conducted. He also stated that there was a strong possibility that the beaker test phase of the Fairhall-Fraser investigation would be published.

After some discussion, the committee then suggested that a beaker test of red lead's solubility in various waters be conducted by some well-known and qualified authority. It was also strongly suggested that if such a test is conducted, the amount of painted steel tested in the beaker be directly proportionate to a volume of water, extrapolated into an average size commercial water tank.

BUILDING RESEARCH INSTITUTE CONFERENCE

The secretary reported that there would be a Research Correlation Conference on Field Applied Paints and Coatings at the Shoreham Hotel, Washington, D. C., on December 3 and 4, 1958, to be sponsored by the Building Research Institute. The secretary further stated that our request to participate in the selection of a program had been received too late by the Building Research Institute and therefore, we had no voice in the program selection. However, a preliminary program indicates that one of our member companies on this committee will have a representative discuss "Metal Substrates."

After some discussion, the secretary was instructed to keep in touch with the Building Research Institute and to offer them our cooperation in this and any future conferences they may conduct.

The meeting adjourned at 12:30 P.M.

David M. Borcina

David M. Borcina
Secretary, Red Lead Technical Committee

Exhibit "4"

Red Lead Technical Committee
Meeting Minutes

May 8 and 9, 1958

L.I.A.PROJECT No.23

SYNTHETIC VEHICLE PRIMER TEST

Exposure sites and conditions

Perth Amboy	- 45° So.
New Orleans	- 45° So.
Sayville	- Tide range

Surface

Hot rolled 4 x 4 x 12 in. - 3/8 in. thick mill scale angles and 6 x 12 in. - 12 gauge plates.

Plan of tests

Perth Amboy	- 2 mill scale, 1 sandblasted angles.
New Orleans	- 2 sandblasted 12 gauge plate.

One and 2 coat primer with and without 1 gray finish at both of above locations.

Sayville	- Two sandblasted 12 gauge plates. Two coats primer, 1 gray finish.

Film thickness

1.5 mils dry per coat.

(PAINTS IN TEST)

L.I.A. NO.	COMPANY	PAINT NO.	TYPE
501	Glidden	RGL25005A	Navy 116
503	Glidden	GL67068	Navy 116 with isophthalic
506	Glidden	GL67070	Navy 116 with isophthalic
504	Glidden	RGL-21256A	TT-P-86a, III
502	Glidden	GL67067	TT-P-86a, III, with isophthalic
505	Glidden	GL67069	TT-P-86a, III, with isophthalic
511	NL Co.	T5118	RL-Epon with 4% amine
512	NL Co.	T5119	RL-Epon with 5% amine
513	NL Co.	T5120	RL-Epon with 6% amine
515	NL Co.	T5121	RL-Epon with Polyamide
516	Dr. Carrick	-	Castor Alkyd with P.A.
517	Dr. Carrick	-	Castor Alkyd with isophthalic
518	Dr. Carrick	-	Castor Alkyd with P.A. and p.tertiary butyl benzoic acid
519	Dr. Carrick	-	Castor Alkyd with Isophthalic and p.tertiary butyl benzoic acid.
520	NL Co.	5106	RL-Epon L.O.Ester (L-8)
521	NL Co.	5115	RL-Epon Soya Ester (S-4)
522	NL Co.	5116	RL-Epon Soya Ester (S-6)
523	NL Co.	5117	RL-Epon Tall Oil Ester (T-8)
524	EP Co.	E-3-213	RL-Epon Hypalon 20
525	EP Co.	E-3-214	RL-Epon Hypalon 20
526	EP Co.	E-3-247	RL Parlon-Arochlor
527	EP Co.	E-3-280	RL Parlon-Boiled Oil
-	Glidden	GL67105	TT-E-489 Class A (Gray)

Also RL-Epoxidised Oil coating prepared by ADM.

Red Lead Technical Committee
Meeting Minutes

Exhibit "A"
May 8 and 9, 1958
L.I.A. Project No. 21

PAINT FORMULATIONS

L.I.A. PAINT NO.	501	502	503	504	505	506	Top Coat
% Pigment	49.72	70.96	54.97	67.76	66.3	51.18	18.96
95 Red Lead	52.4	-	-	-	-	-	
97 Red Lead	-	99.6	55.3	99.7	99.6	55.03	
Zinc Yellow	8.46		10.0			10.07	
Mica	8.94		9.4			9.45	
Indian Red	1.44		1.48			1.39	
Mg. Sil.	22.12		23.0			23.10	
Rutile TiO_2							89.6
Lampblack							5.2
Yellow I.O.							5.2
Al. St.	0.64	0.4	0.82	0.3	0.4	0.96	
% Vehicle	50.28	29.04	45.03	32.24	33.7	48.82	81.04
Dipentine	3.71						-
Lecithin	0.47			1.23			0.07
TT-R-266 Type III	-			79.91			
TT-R-266 Type I, Class B	74.42			-			
L.I.A. Vehicle 506					-	89.23	
L.I.A. Vehicle 505					90.24	-	
L.I.A. Vehicle 503		-	73.50				
L.I.A. Vehicle 502		79.15	-				
2-KB-476							81.78
S-43							14.68
Xylol	-	20.31	3.92	4.48	9.36	2.92	
Mineral Spirits	19.67	-	21.90	14.13	-	7.47	
Nuact	-		-			-	0.14
Lead Napthenate (24)	0.79		0.23			0.13	2.10
Cobalt Octoate (6)	0.63	0.27	0.45	0.17	0.20	0.25	0.84
Anti-Skinning Agent	0.31	0.27		0.08	0.20		0.39
PV	35	35	35	40	35	35	
Wt./Cal.$_2$	12.5	21.0	13.25	19.0	18.34	12.55	8.8
Gms./ft.	10.9	14.8	10.0	17.6	15.0	11.0	10.0

Red Lead Technical Committee
Meeting Minutes

Exhibit "A"
May 8 and 9, 1958
L.I.A. Project No. 23

PAINT FORMULATIONS

L.I.A. PAINT NO.	511	512	513	515	520	521	522	523
% Pigment	59.7	59.06	58.88	64.6	64.4	67.0	67.0	62.58
97 Red Lead	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
Bentone 18 e	0.4	0.4	0.4	0.4				
Bentone 34					0.4	0.4	0.4	0.4
% Vehicle	40.3	40.94	41.12	35.4	35.6	33.0	33.0	37.42
Epon Resin 1001	54.25	52.82	52.42	19.05				
B. Resin 216-8	1.63	1.59	1.57	-				
Polyamide 100 (sol. D)	-	-	-	31.77				
Diethylene Triamine	2.17	2.65	3.15					
Epon Ester L-8					71.14	-		
Epon Ester S-4					-	79.85		
Epon Ester S-6							79.87	-
Epon Ester T-8							-	65.73
Sovasol 5	-	-	-	-	17.51	19.66	19.66	16.18
Xylol	12.30	11.99	11.89	36.5	10.91	-	-	17.68
MIBK	17.71	19.32	19.43	9.51				
Cellosolve	11.94	11.63	11.54	3.17				
Cobalt 6%					0.35	0.39	0.39	0.33
ASA					0.09	0.10	0.10	0.08
PV	26.1	25.9	25.7	37.2	37.6	37.7	37.2	37.8
Wt./Gal.	17.99	17.68	17.71	18.42	17.3	19.0	18.25	16.68
Consis. (KU)	85	84	80	75	87	74	84	84
% NVV	56.6	55.3	55.7	43.9	40.4	46.1	44.9	37.7
Gms/ft.^{2} for 1.5 mils dried film thickness	13.5	13.6	13.5	17.8	18.2	17.5	17.2	18.8

Red Lead Technical Committee
Meeting Minutes

Exhibit "A"
May 8 and 9, 1958
L.I.A. Project No. 23

PAINT FORMULATIONS

L.I.A. PAINT NO.	516	517	518	519
% Pigment	64.52	63.84	68.72	67.3
97 Red Lead	100	100	100	100
% Vehicle	35.48	36.16	31.28	32.7
516	69.23			
517		71.13		
518			83.63	
519				78.31
Mineral Spirits and Drier	30.77	4.77	16.37	0.41
Xylol		24.1		21.28
PV	36.9	36.9	36.9	36.9
Wt./Gal.	17.0	17.4	18.8	18.9
% NVV	40.3	41.2	47.7	45.13
Gms./ft.^{2}	17.9	17.9	16.7	17.8

Red Lead Technical Committee
Meeting Minutes -6-

Exhibit "A"
May 8 and 9, 1958
L.I.A. Project No. 23

PAINT FORMULATIONS

L.I.A. PAINT NO.	524	525	526	527
% Pigment	21.25	25.13	55.2	52.4
97 Red Lead	73.18	78.43	99.7	79.2
Mytal 300	24.38	19.62		11.3
Bentone 34	2.44	1.95		2.3
Aluminum Stearate			0.3	
325 Mica				5.7
IO (CIMR-9998)				1.5
% Vehicle	78.75	74.87	44.8	47.6
Hydrogenated Wood Resin	0.65	0.65		
MBTS *	0.27	0.27		
Thiurom M **	0.06	0.07		
Lead Acetate	0.27	0.27		
Hypalon 20	13.17	13.17		
Durez 12603	13.17	13.17		
Xylol	52.66	52.65	29.7	
Mineral Spirits	6.58	6.58		
Butenol	13.17	13.17		
Boiled Linseed Oil				22.4
Parlon 200 P.			23.3	18.7
Arochlor 5460			6.4	
Arochlor 1254			12.7	
Shell TS-28 Solvent			29.7	34.6
Turpentine				22.4
Methanol				1.1
Soyalecithin				0.8
Wt./Gal.	9.27	9.68	17.30	14.40
% NVV	27.89	26.31	37.5	44.4
Gms./ft.^{2}	14.1	15.6	19.6	13.7

* Benzothiazyl Disulphide
** Tetramethyl Thiurom Disulphide

Red Lead Technical Committee
Meeting Minutes

Exhibit "B"
May 8 and 9, 1958

COPY

THE GLIDDEN COMPANY

900 Union Commerce Building

Cleveland 14, Ohio

Alexander D. Duncan
Vice President

May 13, 1958

Mr. O. F. Shobe
1286 Manor Park
Lakewood 7, Ohio

Dear Mr. Shobe:

This is to confirm our conversation, and Glidden's agreement to sell at a price yet to be determined our Rustmaster penetrating liquid to other paint companies for use in Lead Industries Association specifications for the painting and priming of steel.

Very truly yours,

A. D. DUNCAN (SIGNED)

ADD m

CC: Mr. R. L. Ziegfeld
Lead Industries Association
60 East 42nd Street
New York 17, N.Y.

Red Lead Technical Committee — Exhibit HCW
Meeting Minutes — May 8 and 9, 1958

L.I.A. PROJECT NO. 27

Scope

To test various wash primers and anti-corrosive primers in sea water, total immersion and tide range, and fresh water.

Test Specimens

Sandblasted steel panels.

Painting System

W.P. - Not over 1/2 mil.
A.C. - 6 mils.
A.F. - 3 mils - for total immersion
Top coat - 1-1/2 mils Al.-vinyl for tide range.
All A.C. paints over L.I.A. W.P. 2703 and 2704
All W.P. paints with 2 coats L.I.A. 2711 and 2716

Site

Sayville, L.I.

Notes

R. P. to make up Wash Primers.
National Lead to make up A.C. paints.

Substitution of pigments on volume basis.

WP DESCRIPTION

L.I.A. WP 2701 - 86.26% Basic Zinc Chromate, 12.78% Asb., 0.96 Lampblack. 9.98% XYHL, 22.28% Butyl Alcohol, 67.74% Ethyl Alcohol, 27.3 PV.

L.I.A. WP 2702 - Same as WP 2701 except Butvar B-76 for XYHL.

L.I.A. WP 2703 - 45.02% R.L., 45.02% Basic Zn. Chr., 9.27% Asb., 0.67 Lampblack. 9.98% XYHL, 22.28% Butyl Alcohol, 67.74% Ethyl Alcohol, 27.3 PV.

L.I.A. WP 2704 - Same as WP 2703 except Butvar V-76 for XYHL.

L.I.A. WP 2705 - Same as WP 2701 except M-50 for Zinc Chromate.

L.I.A. WP 2706 - Same as WP 2702 except M-50 for Zinc Chromate.

L.I.A. WP 2707 - Same as WP 2703 except M-50 for Red Lead.

L.I.A. WP 2708 - Same as WP 2704 except M-50 for Red Lead.

L.I.A. WP 2709 - Same as WP 2703 except M-50 for Zinc Chromate.

L.I.A. WP 2710 - Basic Lead Chromate in XYHL.

L.I.A. PROJECT NO. 27
(Continued)

A.C. PAINTS DESCRIPTION

L.I.A. 2711 - 100% Red Lead. 19.3% VAGH, 2% TCP, 39.33% Hexone, 39.33% Toluol, 18 PV.

L.I.A. 2712 - Same as L.I.A. 2711 except Pb Zn 35 in place of Red Lead.

L.I.A. 2713 - Same as L.I.A. 2711 except DB 45X in place of Red Lead.

L.I.A. 2714 - Same as L.I.A. 2711 except Dibasic Lead Phosphite in place of Red Lead.

L.I.A. 2715 - Same as L.I.A. 2711 except Basic Zinc Chromate in place of Red Lead.

L.I.A. 2716 - Same as L.I.A. 2711 except M-50 in place of Red Lead.

L.I.A. 2717 - Same as L.I.A. 2711 except 50% Red Lead, 50% M-50 in place of Red Lead.