

INTERNATIONAL LEAD ZINC RESEARCH ORGANIZATION, INC.

MINUTES
of the

LEAD PROGRAM REVIEW COMMITTEE

1969 MEETING

October 7-8, 1969

In accordance with notice of September 9, 1969, the Meeting of the Lead Program Review Committee of International Lead Zinc Research Organization, Inc., a New York Membership Corporation, was held at the Hotel Parco dei Principi, Rome, Italy starting at 9:30 a.m. on October 7, 1969 and continuing through October 8, 1969. The following committee members were present:

I. L. Barker	Cerro Sales Corporation
E. V. Frawley	American Metal Climax, Inc.
* A. Kurayama	Mitsui Mining & Smelting Co., Ltd.
** D. L. LaVelle	American Smelting & Refining Company
J. J. Lennon	Ametalco, Inc. (for Tsumeb)
V. Rodriguez Peña	Compagnie Royale Asturienne des Mines
H. Sakurai	Mitsubishi Metal Mining Co., Ltd.
G. Scacciati	Monteponi & Montevercchio
J. G. Sevic	St. Joseph Lead Company
*** J. S. Smart, Jr.	American Smelting & Refining Company
R. J. Testut	Société Minière et Metallurgique de Penarroya
**** W. C. Zeek	C. Tennant Sons & Company

representing 12 of the 17 lead member companies and constituting a quorum.

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- * In place of Mr. K. Kuwahara
 - ** In place of Mr. A. A. Smith
 - *** Voting for Mount Isa Mines Ltd.
 - **** Representing the Broken Hill Associated Smelters Proprietary, Limited

The following individuals were present by invitation:

K. J. Altorfer	ILZRO
A. Batacchi	AMMI S.p.A.
J. Darcey	Société Minière et Metallurgique de Penarroya
S. E. Eck	ILZRO
C. J. Hamdorf	Electrolytic Zinc Co. of Australasia Ltd
C. C. Long	St. Joseph Lead Company
P. R. Mead	Sulphide Corporation Pty. Limited
J. G. Noltes	Organisch Chemisch Instituut, TNO
A. Perin	AMMI S.p.A.
S. F. Radtke	ILZRO
S. A. Sutter	ILZRO
H. Tachimori	Mitsui Mining & Smelting Co., Ltd.

Mr. John L. Lennon, chairman of the committee presided and Mr.

K. J. Altorfer, secretary, kept the minutes.

Election of Officers

Upon motion duly made and seconded, it was unanimously:

RESOLVED, That John L. Lennon be hereby re-elected to Chairman of the Lead Program Review Committee.

Upon motion duly made and seconded, it was unanimously:

RESOLVED, That Charles F. deArmond be hereby re-elected to Vice Chairman of the Lead Program Review Committee.

A Review of Commercial Developments

Dr. Radtke reviewed the progress of the Zn 75 (ZM-151) and indicated that the car had been extremely well received in North America.

Dr. Radtke also reviewed a proposed change to the allocation formula for dues. Such changes, if subsequently approved by the ILZRO Board of Directors would lead to expanded ILZRO membership among non-integrated mining and custom smelting companies.

1970 Lead R&D Authorizations

After discussion, upon motion duly made and seconded, it was:

RESOLVED, That the following research projects with the indicated amounts be recommended to the Board of Directors for funding in the 1970 ILZRO R&D Program.

PROJECT NUMBER AND TITLE1969 FUNDS AUTHORIZED

LC	154	Organoleads For Tropical Disease Control	\$ 5,000
LC	89	Lead Compounds as Wood Impregnants Against Marine Borers	3,500
ULC	48	Organolead Terrestrial Wood Preservation	15,000
ULC	55	Elastomeric Antifouling Coatings	12,000
LC	18	Organolead Chemistry	46,000
LC	28	Synthesis of Organolead Compounds	12,200
ULC	54	Organolead Research Fellowship	8,800
IM	122	Lead Plastic Composites for Packaging and Barrier Applications	25,000
IM	121	Reinforced Lead Applications	10,000

Professor Scacciati reviewed the progress of this program after which the committee expressed the desire to have markets evaluated for reinforced lead as part of the program scope.

IM	123	Field Tests on Adhesive Lead Cladding	10,000
IM	58	Plumbing Applications of Lead	5,500
LE	100	Protective and Decorative Finishes for Lead	6,250
IM	55	Lead Composite Cable Sheathing	24,000
IM	142	Extrusion of High Strength Cable Sheathing Alloy	20,000
LE	84	Pastes and Grids for the Lead Acid Battery	37,500

Dr. Zeek made the comment that the term general should be substituted for S.L.I. as a battery type classification.

LE	156	Lead Air Battery	20,000
LE	143	Battery Powered Vehicle	58,000

This program was previously approved by letter ballot.

ULE	64	Charger-Controller for Electric Vehicle	5,000
ULE	68	Procurement and Evaluation of Lead Battery Powered Vehicles	10,000

The committee approved this program for \$10,000 to cover the cost of developing a plan for evaluation and test of battery powered vehicles. The scope of the program is to be limited to planning and is to exclude testing.

LE	128	Support of Battery Research at NRL	25,000
ULE	62	The Effect of Aging on Anodic Corrosion	12,000

The committee approved this program for \$12,000 dollars expanding its scope to include the objectives of ULM 60 and deleted ULM 60 from the 1970 program.

PROJECT NUMBER AND TITLE (continued)1969 FUNDS AUTHORIZED

ULE 42	Effect of Composition & Structure on Corrosion of Lead Calcium Alloys	\$ 20,000
ULE 67	A Standard Reference Book on the Lead-Acid Battery	5,000

The committee approved this program for \$5,000 expanding its scope to include the objectives of ULE 57 and deleted ULE 57 from the 1970 program.

LC 127	Lead Pigments in Paints	10,000
LM 153	Explosive Cladding of Lead to Steel	27,610
LM 155	Cryogenic Properties of Lead & Lead Alloys	20,000
LM 141	Industrial Application of Lead	2,500
LC 139	Oriented High Lead Ferrites	7,500
LC 150	Photochemical Reactions of Lead Oxide	8,950
ULC 52	Phase Diagrams of Leaded Glass Systems	6,800
ULC 53	Crystallization of Magnetic Lead Ferrites	6,000
LH 115	Seven Cities Survey	34,659
LH 79A & B	Toxicity Testing for Organo-Lead Compounds	10,000
LH 152	Blood-Lead Analysis Study	9,000
LH 157	Health Study of Lead Workers	50,000
LH 94	Study of Biological Basis for Lead Intoxication	52,240
LH 106	Kettering Lead Abstracts	2,500
LH 158	Information on Lead Environmental Health Activities in Europe	3,500
ULH 17	Study of the Effects of Lead on the Respiratory Activity of Erythropoietic Cells	7,790
ULH 20	Effect of Particle Size on the Absorption of Lead in Humans	37,500
ULH 21	Health Effects of Lead Workshop	1,700
ULH 22	Human Variations in Susceptibility to Lead	12,500
ENVIRONMENTAL HEALTH UNDESIGNATED RESEARCH AUTHORIZATION		25,000
LP 52	Lead Abstracting Service	11,820

The possibility of discontinuing financial support of the abstracting service was discussed. Based on the wide usage and value provided by the service, the committee approved continued funding of the program in the indicated amount.

UNDESIGNATED RESEARCH AUTHORIZATION	50,000
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TOTAL LEAD AUTHORIZATION	\$793,319
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After discussion, upon motion duly made and seconded, it was:

RESOLVED, That the following research projects be deleted from the 1970 ILZRO R&D Program and that they be held for future consideration.

PROJECT NUMBER AND TITLE

LC 49 Organolead Lubricant Additives
ULC 45 Organolead Polymers
ULC 46 Lead Additives for Paper
ULC 47 Lead Mildicides in Roofing
DM 147 Lead Curtain Walls
ULM 53 Lead for Impact Noise Attenuation

The committee recommended that the proposal received from the prospective contractor be referred to the member companies since it was felt there was a possibility that one or more had interest in pursuing this matter on a private basis with the contractor

ULM 52 Lead Coated Aluminum
ULM 49 Lead Cable Splicing
ULE 57 Exploitation of Patent Literature on the Lead-Acid Battery

The committee recommended that the objectives of ULE 57 be included in the scope of ULE 67 and that ULE 57 be deleted.

ULE 60 Lead Lithium Binary & Other Lithium Alloys for Battery Grids
LC 81 Antifouling Paint Formulations
ULE 1 Fundamentals of Lead Corrosion
ULE 58 Electrical Properties of Lead
ULM 58 Lead Alloy Phase Diagrams
ULM 60 Aging Study of Pb-Sb Alloys

The committee recommended that the objectives of ULM 60 be included in the scope of ULE 62 and that ULM 60 be deleted.

1970 Meeting of the Lead Program Review Committee

Mr. S. Smart announced that the 1970 ILZRO Annual Meeting and the 1970 Program Review Committee meetings will be held somewhere on the North American Continent. The exact time and place to be announced at a later time. In making this announcement Mr. Smart thanked the ILZRO members from Japan who had extended an invitation to hold the 1970 meetings in Tokyo.

Adjournment

There being no further business to come before the meeting, it was, upon motion duly made and seconded, unanimously resolved to adjourn.

K. J. Altorfer
Secretary