

INTERNATIONAL LEAD ZINC RESEARCH ORGANIZATION, INC.

MINUTES
of the
ZINC PROGRAM REVIEW COMMITTEE
1969 MEETING
October 9-10, 1969

In accordance with notice of September 9, 1969, the Meeting of the Zinc 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 9, 1969 and continuing through October 10, 1969. The following committee members were present:

A. K. Barbour	The Rio Tinto-Zinc Corporation, Ltd.
I. L. Barker	Cerro Sales Corporation
E. A. Custer	American Zinc Company
W. L. Donehower, Jr.	Matthiessen & Hegeler Zinc Company
E. V. Frawley	American Metal Climax, Inc.
A. G. Ghysens	Societe des Mines & Fonderies de Zinc de la Vieille-Montagne
P. Gittelson	National Zinc Company, Inc.
B. C. Hafford	The New Jersey Zinc Company
C. J. Hamdorf	Electrolytic Zinc Company of Australasia Ltd.
K. C. Hendrick	Noranda Sales Corporation, Ltd.
* A. Kurayama	Mitsui Mining & Smelting Co., Ltd.
** D. L. LaVelle	American Smelting and Refining Company
J. J. Lennon	Ametalco, Inc. (for Tsumeb)
C. C. Long	St. Joseph Lead Company
P. R. Mead	Sulphide Corporation Pty. Limited
G. Van Monsjou	N. V. Kempensche Zinkmaatschappij
A. C. Pommerie	Compagnie Royale Asturienne des Mines
J. D. Purvis	Hudson Bay Mining and Smelting Co., Ltd.

* In place of Mr. K. Kuwahara

** In place of Mr. A. A. Smith

R. W. Rosenquest
H. Sakurai
G. Scacciati
J. S. Smart, Jr.
R. J. Testut

The New Jersey Zinc Company
Mitsubishi Metal Mining Co., Ltd.
Monteponi & Montevecchio
American Smelting & Refining Company
Société Minière et Metallurgique de
Penarroya
The Broken Hill Associated Smelters
Proprietary, Ltd.

*** W. C. Zeek

representing 23 of the 27 zinc member companies and constituting a quorum.

The following individuals were present by invitation:

K. J. Altorfer
A. Batacchi
J. Darcey

T. S. Daugherty
S. E. Eck
F. R. Jeffrey
J. G. Noltes
A. Perin
S. F. Radtke
J. G. Sevick
S. A. Sutter
H. Tachimori
B. H. Taylor

J. G. M. van der Kerk
E. Varady

ILZRO
AMMI S.p.A.
Société Minière et Metallurgique de
Penarroya
Reynolds Metals Company
ILZRO
National Zinc Company, Inc.
Organisch Chemisch Instituut TNO
AMMI S.p.A.
ILZRO
St. Joseph Lead Company
ILZRO
Mitsui Mining & Smelting Company, Ltd.
The Broken Hill Associated Smelters
Proprietary, Ltd.
Organisch Chemisch Instituut TNO
Istituto Italiano del Piombo e dello Zinco

Mr. A. C. Pommerie, 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 Aimé C. Pommerie be hereby re-elected to Chairman of the Lead Program Review Committee.

Upon motion duly made and seconded, it was unanimously:

RESOLVED, That R. W. Rosenquest be hereby re-elected to Vice Chairman of the Lead Program Review Committee.

*** Representing the Broken Hill Associated Smelters Proprietary, Ltd.

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.

To illustrate the large world-wide market potential for ILZRO 12 in foundry applications, Mr. Altorfer presented current consumption data for ferrous and non-ferrous foundry alloys. The data presented indicated a potential foundry market for zinc in the U.S.A. as large as the existing die casting market. Member companies were urged to pursue the promotion of ILZRO 12 in foundry applications.

1970 Zinc 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.

<u>PROJECT NUMBER AND TITLE</u>	<u>1970 FUNDS AUTHORIZED</u>
ZM 132A Die Casting Process Improvement	\$125,000
ZM 132B Die Casting Process Improvement	50,400
ZE 138 Improving the Platability of Zinc Die Castings	53,000
ZE 98 Plating from Organic Electrolytes	24,000
ZM 133 Zinc vs. Plastics - An Engineering Evaluation	19,000
ZM 115 Welding Zinc Coated Structural	10,750
UZE 78 Zinc Coatings and Prestressed Concrete	15,000
ZE 153 Corrosion of Galvanized Steel Domestic Hot & Cold Water Pipes	16,300
UZE 83 Corrosion Resistant Fasteners for Galvanized Structural	15,000
ZM 146 Kinetics of the Galvanizing Process	16,500
ZM 135 Physical Properties of Iron-Zinc Compounds	5,000
ZM 124 Galvanizing Characteristics of Steels and their Weldments	36,000

PROJECT NUMBER AND TITLE (continued)

1970 FUNDS AUTHORIZED

The committee requested that it be advised subsequently by the ILZRO staff concerning the types of steels to be included in the program and the areas of the world from which steels had been selected for inclusion in the program.

ZM	113	Alloyed Galvanized Coatings	\$ 15,000
ZE	36	Zinc Rich Paint	4,600
ZE	114	Painting of Sprayed Zinc	8,040
ZM	92	Direct Conversion of Particulate Zinc	60,000

Professor Scacciati reviewed the progress of this program after which Mr. T. Daugherty of the Reynolds Metals Company reviewed the particulate aluminum program at his company.

ZM	79H	Welded Zinc Tubing	5,000
ZM	101	Zinc Screw Machine Alloy	10,000

The committee requested that it be advised by the ILZRO staff of the cutting speeds and feeds being used to evaluate the screw machine alloys so that they could be compared with commercial practice. The committee also requested to be advised if carbide tooling was being used. A desire was expressed to include in this program an evaluation of the properties of the screw machine alloys.

ZM	145	Ultra High Speed Zinc Plate Etching	
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Mr. Gyhsens advised the committee of the need for improved etching techniques in Belgium and urged that the program be initiated as soon as possible. The committee approved the project without authorizing funds and recommended that the project be started in 1970 as soon as funds became available.

ZM	151	Zinc Trim Systems	4,000
UZM	66	New Zinc Roofing Techniques	38,000
ZC	42	Zinc Organic Chemistry	29,000

Professor van der Kerk reviewed the progress of this program.

ZC	111	Zinc Oxide in Plastics	26,000
UZC	43	Zinc in Human Nutrition	8,000
ZC	148	Zinc Paint Systems	10,000
UZC	47	Surface Characteristics of Metallic Zinc Paint Pigments	14,400
ZE	120	Plating from Alkaline Solutions	20,000

PROJECT NUMBER AND TITLE (continued)

1970 FUNDS AUTHORIZED

UZE 57 Alloys for Zinc Dry Cells \$ 25,000

The committee recommended that spending in 1970 be limited to \$6,000 pending technical committee approval of an acceptable proposal and if funds are available from undesignated or other sources.

ZM 79J Industrial Applications of Zinc 2,500
UZM 61 Galvanized Steel Housing for Developing Nations 2,500
ZP 55 Zinc Abstracting Service 11,820
UNDESIGNATED RESEARCH AUTHORIZATION 50,000

TOTAL ZINC AUTHORIZATION \$729,810

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.

UZE 79 Handbook on Finishing Zinc
ZM 67 Creep Resistant Zinc Die Casting Alloys
UZM 63 Fiber Reinforced Zinc Die Casting Alloys
ZE 52 Galvanized Steel Reinforcement in Concrete
UZM 73 Pretreatment of High Silicon Steels
ZE 118 Zinc Coatings for Copper Ground Wires
UZE 27 Wet Storage Stain and Packaged Zinc Corrosion Inhibitors
UZC 54 Biological Response to Zinc Compounds
UZC 51 Zinc Oxide Stabilization of Bitumastic Materials- Exploratory
UZE 89 Development of Rechargeable Zinc Cells
UZM 69 Zinc Deformation Fellowship
ZC 131 Zinc Requirements for Beef Cattle

1970 Meeting of the Zinc 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