LEAD INDUSTRIES ASSOCIATION, INC.
292 MADISON AVENUE
NEW YORK 17, N. Y.

March 4, 1963

SUBJECT: REPRINT ON LEAD

To Members of the Lead Industries Association, Inc.:

Enclosed is a reprint of the article on lead from the annual review issue of "Engineering and Mining Journal," February, 1963.

Extra copies are available as long as our supply lasts.

Very truly yours,

RLZ:mk
Enc.

Executive Vice President

Look Ahead with Lead

Reprinted from

ENGINEERING AND MINING JOURNAL

February 1963

Annual Survey
And Outlook

LEAD—1962

Robert L. Ziegfeld
Executive Vice President
Lead Industries Assn.

Lead price levels during '62 were disappointing. However, consumption rose about 6%, world refiners' stocks were reduced, and manufacturers' stocks remained low.

Lead

R. L. Ziegfeld
Lead Industries Assn. Inc.

ALTHOUGH THE PRICE LEVELS for lead which prevailed throughout 1962 were disappointing to lead producers, other factors cannot be reviewed without a considerable feeling of optimism. Consumption of lead is estimated at a moderate increase of about 6% over the two preceding years. Refiners' stocks in both the U.S. and abroad were reduced substantially, and manufacturers' stocks remained low. Production was at an extremely low level largely due to a major protracted strike. Thus, lead enters 1963 in a much stronger statistical position than it has enjoyed in a long time, with the price increasing moderately toward year-end and consumption in the final quarter of the year being well ahead of any of the earlier quarters and the fourth quarter a year ago.

In fact, statistics compiled by the United Nations Lead-Zinc Study Group and considered at its last meeting in Geneva in October 1962 predicted a small excess of demand over supplies. As a result the group took no action on lead with the feeling that none was necessary at the time and that the lead situation was correcting itself.

Mine production of lead in the U.S. in 1962 set a new low since the turn of the century at about 237,000 tons. This was largely due to a protracted strike at the southeast Missouri mines of St. Joseph Lead, largest domestic lead miner, which started in late July and continued into 1963. This strike cost the industry some 10,000 tons of lead a month during the last five months of the year. However, it did not affect deliveries or consumption of lead because of the large stocks of metal in this and other producers' hands.

Consumption, on the other hand, showed a moderate increase of about 60,000 tons to an estimated 1.09-million tons or nearly 6%. This was about 40,000 tons higher than the average consumption over the preceding five years. Indicating that the higher consumption rate was no flash in the pan is the fact that consumption in every quarter of the year exceeded consumption in the corresponding quarter of 1961 and even in the third quarter of 1962, which traditionally is the lowest consumption quarter because of the vacation months of July and August, consumption was higher than in any quarter of 1961 except the last quarter, the last quarter traditionally showing the heaviest consumption.

It seems logical to conclude that the lead consumption pattern is stabilizing itself on a slowly rising trend, barring major general business reversals, with each of the last two years showing increases. It appears that some of the heavy substitution in some uses of lead have stabilized and that expansion of other uses is thus beginning to be felt.

Imports of both pig lead and ore and concentrates were again controlled by quota and remained the same as in 1961 at 130,000 tons of recoverable lead in ore and 222,000 tons of pig lead. However, an additional amount was imported for Government stockpile and not for consumption, and this was outside the quota. Most of it was the result of barter arrangements concluded in 1961 with Australia and Canada and amounted to about 8000 tons of ore and 53,000 tons of metal in 1962

U.S. Lead Supply and Demand*

(short tons of lead content)

Supply:	1962**	1961
Mine production	237,000	261,900
Secondary production	440,000	449,900
Quota imports		
Ore, recoverable	130,000	130,000
Pigs and bars	222,000	222,000
Other imports (mainly for stockpile):		
Ore, recoverable	8,000	15,000
Pigs and bars	53,000	35,000
Total	1,090,000	1,113,800
Changes in stocks at primary smelters and refineries	58,000 (decr.)	49,400 (inc.)
Total	1,148,000	1,064,400
Exports	8,200	6,600
Total available	1,136,800	1,057,800
Demand:		
Industrial consumption	1,087,000	1,027,200
Estimated stockpile shipments	61,000	50,000
Consumers and secondary smelter stocks	7,000 (decr.)	1,900 (inc.)
Unaccounted for	−4,200	−21,300
Total	1,134,800	1,057,800

*Based on ABMS, USBM and Lead Industries Assn. estimates
**Estimated

Lead Price Changes

(¢ per lb N. Y.)

Nov. 28, 1961	10.25
Jan. 5, 1962	10.00
Feb. 1, 1962	9.75
Feb. 9, 1962	9.50
Nov. 2, 1962	10.00

U.S. Lead Use*

(short tons of lead content)

	1962**	1961
White lead	11,000	11,000
Red lead and litharge	75,000	72,000
Storage batteries	397,000	368,000
Cable	55,500	57,500
Building	50,000	47,200
Tetraethyl lead	172,000	169,800
Ammunition	47,000	45,800
Fuel	4,000	3,000
Bearing metals	17,000	17,800
Solder	63,000	54,800
Type metal	27,000	26,700
Caulking	73,000	67,400
Brass & bronze	21,000	20,100
Castings	7,300	6,900
Collapsible tubes	12,000	11,200
Misc. uses	54,200	48,000
	1,087,000	1,027,200

*Based on USBM statistics
**Estimated

Quarterly U.S. Lead Use

(short tons)

	1962	1961
1st quarter	269,500	247,900
2nd quarter	263,300	251,600
3rd quarter	259,500	252,700
4th quarter	294,700	273,000
	1,087,000	1,027,200

World Stock Figures

(ABMS—summary of lead refining statistics in U.S. and outside U.S.)

Combined U.S. and Outside U.S.

End of	In short tons
November 1962	466,965
December 1961	468,019
	U.S.
November 1962	170,294
December 1961	211,522
	Outside U.S.
November 1962	168,671
December 1961	256,497

compared with 15,000 and 35,000 tons, respectively in 1961.

Secondary lead production in 1962 is estimated at about 440,000 tons —only slightly lower than 1961.

The higher 1962 consumption in the U.S. combined with unchanged imports, slightly lower secondary production, and substantially lower mine production to reduce inventories materially. Stocks in the hands of primary refiners were reduced nearly 50,000 tons and in the hands of secondary smelters and consumers another 7000. At the same time stocks of lead in the hands of refiners outside the U.S. dropped nearly 100,000 tons, leaving lead in the best statistical position in a long time with total stocks of some 325,000 tons in the hands of Free World refiners.

Prices. As has been previously stated, prices were not attractive to producers in 1962. The year opened with lead quoted at 10¼¢ per lb New York. It dropped to 10¢ on Jan. 5, to 9¾¢ on Feb. 1, and to 9½¢ on Feb. 9. There it remained until the greatly improved fall consumption and strike-limited supplies moved it back up to 10¢ on Nov. 2, the price prevailing at year-end. The general feeling in the trade at the beginning of the new year was that the market was exceedingly strong. The London price at year-end was around £54 to £55, to which it recovered from several pounds lower earlier in the year. Another factor adding to the year-end market strength was the December rioting at Cerro's Peruvian properties; plant damage resulted, affecting production. The dock strike at Atlantic and Gulf Coast ports at the end of the year may also have an effect on imports.

A constructive development of 1962 was the First International Lead Conference held in London in October. Rather than deal with production problems and controls, as have the U.N. sponsored meetings, this conference dealt with markets and new developments. Three day-long sessions of papers dealing with technical and market problems of lead products, particularly storage batteries, cable sheathing and radiation shielding, were attended by 250 lead people from 26 countries. The conference, sponsored by the European Lead Development Committee composed of the administrators of the lead associations in Great Britain and Continental Europe, was such a success and received so much publicity favorable to lead that, at this writing, it is planned to make it a biennial affair.

Consumption. Europe's lead consumption seems to be holding up very well. Even some lead products that are meeting severe competition, as in building construction, are maintaining their consumption levels extremely well because of the high level of business activity and construction in most of western Europe. The lead battery, anti-knock and oxide businesses there are all looking forward to annual increases of 10% to 15% in each of the next five years. France has a well established business of some 30 years standing in lead-asbestos anti-vibration pads for isolating machinery. Lead cable sheathing is maintaining a much larger share of the market in Europe than in the U.S., and new cable plants are installing lead extrusion equipment, including continuous lead extrusion presses recently perfected in the U.S. Germany has several hundred modern battery-powered railroad cars used on lines where traffic does not justify electrification, and all western Europe is much more dependent on battery-powered industrial trucks and even short-haul delivery trucks than is the U.S.

But lead consumption here, as already stated, gave an excellent account of itself. Storage batteries showed the biggest increase, using some 30,000 tons more than a year earlier as a result of a high rate of new equipment production and a record replacement battery year in which more than 28-million such batteries were produced. Other uses of lead showing more modest increases in lead consumption were lead oxides, building construction and caulking lead, tetraethyl lead, ammunition, foil, solder and collapsible tubes. No use of lead showed any major decline, supporting an earlier statement that substitution for lead in some industries that has been going on in recent years has leveled off.

Trends. A few brief comments on trends in two of the most important individual uses of lead may be informative. Battery consumption appears not only to reflect the high new car production rate and severe weather conditions in much of the country, but also a reversal of the trend started a couple of years ago to compact cars with smaller batteries. It seems that the public once again is going for bigger, more powerful cars and even more glorified compacts. This appears also to be reflected in the lead anti-knock compound figures. In 1962, the average amount of lead per gallon of both regular and high octane gasoline was higher in each month of the year than in each of the corresponding months of 1961.

It should be repeated, as mentioned last year, that actual use of lead products in the U.S. is not fully reflected in the statistics of U.S. lead consumption. This is because lead products imports are not subject to quota restrictions as is pig lead. Also, in the case of Mexico, lead products made there enjoy a low pig lead price and escape the Mexican pig lead export tax. Thus, some 20,000 or more tons of lead products are imported into the U.S. and consumed here. Were these of domestic manufacture lead consumption figures would be some 20,000 tons higher. This condition has only existed in a major way during the last three or four years.

The ceramic industry is a good example. Statistics show that the use of lead in ceramics in the U.S. has remained fairly constant in recent years. However, this industry is now importing 10,000 to 15,000 tpy of lead oxide from Mexico which it did not do five years ago. So instead of lead usage by the ceramic industry remaining static, as consumption figures would imply, use of lead by this industry has actually increased by a third or more. The same holds true to a lesser extent in the case of solder, pipe and other products.

Outlook. As the lead industry enters the year 1963, everything points up the wisdom of its leaders in recent years in deciding to pick the industry up by its own bootstraps. Artificial supports for any industry are always found to have their drawbacks. But an aggressive program to develop markets, although costing a lot of money and energy, is paying off in healthy, though perhaps, slow improvement in lead consumption and creating a recognition of lead's capabilities among designers and others who are responsible for selection of materials. EMD

Printed in U.S.A.