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INTER-OFFICE LETTER

FROM Cleveland

OFFICE Research Admin.

CCNY

FOR Marketing &
Coordinating Committee

OFFICE

DATE January 25, 1971

SUBJECT Elimination of Lead in House Paints

W. E. Scitger
REFER TO LETTER OF

DICTIONARY BY

The 91st Congress passed the Lead-Based Paint Poisoning Prevention Act and the bill is awaiting the President's signature as of January 11, 1971. The bill prohibits the use of "lead based paints" on interior surfaces of dwellings and was expanded to include "... porches and exterior surfaces to which children may be commonly exposed, or residential housing". Exempted were lead-based paints for industrial uses and instances where the painted surfaces are not accessible to children.

This means we need to eliminate the use of leaded zinc oxide and lead chromate yellow in house paints, and white lead in house paint primers. All paints with a lead caution, which have been recommended for the painting of dwellings, must be reformulated or dropped and a new product developed.

HOUSE PAINT TOPCOATS. Formulas not complying because of leaded zinc content are:

<u>Name</u>	<u>Ref</u>
SWP Gloss White	A2 W 4
SWP Trim & Tinting White	A2 W 8
P/C Hi-Level Gloss House Paint	B46 W 4
P/C Hi-Level White, Mildew Resisting	B46 W 14
Excella Oil Base House Paint	B4 W 56
SWP Chelsea Gray	A2 A 20
SWP Beige	A2 H 27
SWP Ruffin	A2 H 38
SWP Sage	A2 G 83
SWP Sandpiper	A2 A 47
SWP Peace Yellow	A2 Y 50

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There are also other formulas of this type marketed by allied divisions.

There are two alternatives to replace our present oil-loaded zinc oxide house paint formulas:

- (1) Replace leaded zinc oxide with pure zinc oxide.
- (2) Replace the present formulas with an alkyl formula; i.e., replace SWP oil based paints with the West Coast SWP Alkyl.

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Alternative:

- (1) The cost to replace leaded zinc oxide with pure zinc oxide is 1.25¢ per pound times 3.6 million pounds, or \$47,500 per year. The increase in cost per gallon is approximately 3.1¢. Performance would be much like the present product except fume resistance would be improved. Suppliers have indicated that they can supply the amount of zinc oxide required.
- (2) The cost to go to an SWP alkyd type is approximately 23¢ per gallon times 1.5 million gallons, or \$345,000. The SWP alkyd is basically a lower cost version of Kem-1-Coat. This change would give faster dry with more resistance to insects and dirt during drying and better fume resistance. Whiter whites are also possible. This formula is more difficult to produce.

Some of the alkyd house paints contain more than 1% lead and will have to be reformulated. This will be difficult because lead promotes adequate drying in dark colored alkyd house paints. Formulas with lead drier and litharge exceeding 1% lead are:

<u>Name</u>	<u>Max</u>
SWP Ardmore Green	A2 G 12
SWP Charcoal Gray	A2 A 38
SWP Westchester Gray	A2 A 42
SWP Tricorn Black	A2 B 18
SWP Doekien	A2 N 68
SWP Winthrop Red	A2 E 44
SWP Verdun Green	A2 G 38
SWP Rovers Green	A2 G 94
SWP Woodland Olive	A2 G 106
SWP Fairfax Brown	A2 N 70
SWP Selfast Red	A2 E 32
SWP Harvest Gold	A2 Y 32
SWP Heritage Colors	
Leatherstock Green	A2 G 51
Colony Green	A2 G 54
Provincial Sage	A2 G 55
Cape Hatteras Blue	A2 L 32
Olds Tavern Brown	A2 N 53
Plantation Brown	A2 N 56
Bucks County Gold	A2 Y 55
King's Yellow	A2 Y 56
Commonwealth Willow Green	A11 G 3
Colonial Barn Red	A11 E 16
Ranch Red	A11 E 47
Rust Control Primer #49	A57 E 17
Beauty Last Redwood	A14 E 59
Rogers House Paint Charcoal	B4 A 3
Rogers House Paint Shutter Green	B4 G 2

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Name

Rogers House Paint Chocolate Brown	B4 N 1
Rogers House Paint Redwood	B4 R 1
Fashion Right House Paint	
Deep Tinting White	A2 W 21
Antique Gold Tinting Base	A2 Y 18
Mimosa Tinting Base	A2 Y 19

There are also some colors which contain lead chromate that will have to be reformulated.

HOUSE PAINT PRIMERS. - Movement figures indicate that approximately 250,000 gallons of SWP Undercoater, A2 W 2, and other lead-containing oil primers were sold in 1969-70. Approximately 160,000 gallons of A-100 Undercoater, A6 W 32, were sold. The best available lead-free substitute is Professional Coatings Alkyd Wood Undercoater, B46 W 31, which has been marketed for about two years for use under both latex and solvent topcoats.

Theoretical FPC's indicate that it will cost \$35,000 to replace A2 W 2 with B46 W 31, but based on actual factory filled costs for 1969-70, MOGA's figured by Joe Wolf indicate that there is no additional overall cost if we consolidate our primers into B46 W 31.

For lower cost solvent lines, the fungicide in B46 W 31 can be eliminated to lower the cost by 27¢ per gallon.

Alkyd primers, such as B46 W 31, will give us faster recoat times, but there may be slightly more cracking on long term exposure on poor woods.

A summary for house paint primers and oil based topcoats is attached.

JJ Lenzotti

JJLenzotti:AM

Directed to: Marketing and Coordinating Committee

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HOUSE PAINT PRIMERS

	<u>SWP A2 W 2</u>	<u>A-100 A6 W 32</u>	<u>PC B46 W 31</u>
Type	Oil, lead	Alkyd, lead	Alkyd, lead free
Recommended Topcoats	Solvent based	Latex based	Solvent and latex
1969-70 Movement	250,000 gals.	160,000 gals.	142,000 gals.
FPC - Actuals	\$2.69	\$2.79	\$2.73
Add'l. Cost to Change to B46 W 31	\$10,000	\$5,600	-
Advantages	More crack resistant. Better wet edge.	-	Primer consolidation*. More mildew resistant. Faster dry. Faster recoat.

*It is suggested that a Trade Sales version of B46 W 31 be used to replace A2 W 2, A6 W 32 and A6 W 39 (marketed in South only) for use under both solvent based and latex based topcoats.

HOUSE PAINT OIL BASED TOPCOATS

	<u>SWP Type</u>	<u>Alternative 1</u>	<u>Alternative 2</u>
Type	Oil, leaded zinc	Oil, pure zinc oxide	Alkyd, PA
1969-70 Movement	1,520,000 gals.	-	50,000
FPC - Actuals	\$2.97	\$3.01 Est.	\$3.20
Add'l. Cost for Alternatives	-	\$47,500	\$345,000
Advantages	-	Cost Higher Film Build Better Wet Edge	Faster dry Faster recoat More dirt resistant Longer lasting Better color retention (Some seeding problem - in manufacture)

JJL:AN

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