

**TETRA ETHYL LEAD PLANT
APRIL 28, 1931**

DR. W. E. DEUEL:

A series of air samples for the determination of lead was taken in "B" plant in accordance with the plan outlined in a previous report.

The results indicated that the exposure on the fourth floor has been reduced; that the hazard on the still floor is the greatest in the main building; that there is little or no lead encountered on the bottom floor; and that tetra ethyl lead is beginning to diffuse into the room from the autoclave charging heads on the top floor.

The analytical results obtained in the alloy showed surprisingly little lead hazard compared to former tests. This, however, is in accordance with the effort spent in cleaning up the dust. All of the eight hour runs with one exception gave negative results. It was generally found that there are few places where dust is allowed to accumulate day after day. These places are the ironwork of the building, and pipe lines, all of which are quite out of a man's reach, and are, therefore, very difficult to get at. However, the dust that does lodge in these places is not likely to become stirred up and go into the air again.

The hazard in the smelter is negligible under normal operating conditions.

Recommendations will be made and measures taken to reduce any lead hazard that is detected by these analytical determinations. Serious conditions will be reported to the Tetra Ethyl Lead management as soon as detected; these more general and less severe will be included in the written report.

J. L. STECHER, SUPT.

EWlopeland

ENG:dlr

PLACE	TIME OF RUN	LEAD AS mg/cm. sq.
Furnace		
Sludge Pit Door (6' from floor)	24 hrs.	ng
Alloy Building		
Grinder #3 (6' from floor)	24 hrs.	.0019
Grinder #3	8 hrs.	.0019
Pot Room 8	16 "	.0019
Pot Room 9	24 "	.0059
Pot Room 10	24 "	ng
Cooler	24 "	.0019
Grinder Pan #3 (6' from floor)	4 "	.0059
" " " " " "	8 "	ng
Pot Room 8	8 "	ng
" " 9	8 "	ng
" " 10	8 "	ng
Main Process Building		
First Floor		
Air Duct (by elevator)	24 hrs.	ng
" " (opposite above)	24 "	ng
" " (by turbines)	24 "	ng
" " (opposite above)	24 "	ng
Lewis Pump #1	24 "	.0034
Centrifugal Pump	24 "	.0019
Third Floor		
Air Duct by 15-13	24 hrs.	.0098
" " 16-14	24 "	.0098
" " 12-10	24 "	.0059
" " 11-9	24 "	.0059
Fourth Floor		
Front 16	24 hrs.	.0019
" 15	24 "	ng
" 15	8 "	.0059
" 13	24 "	.0019
" 11	24 "	.0034
Fifth Floor		
Air Duct by 15	24 hrs.	.0019
" " 13	24 "	.0059
" " 11	24 "	.0034
" " 9	24 "	ng

Note: Unless otherwise noted all samples were taken 6' from floor.

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