

TETRA ETHYL LEAD PLANT

June 9, 1931

DR. W. E. DEUEL:

A series of air samples recently taken in B Plant shows that the lead exposure encountered remains about the same as determined by the previous test. There is but little exposure on the first floor; there is somewhat more on the fourth and fifth floors; and the still floor, as usual, constitutes the greatest hazard in the Main Building. A very little tetra ethyl lead diffuses into the smelter by the sludge pit door. The Alloy Building shows no particular change from last month.

The high results obtained at the Grinder Pan in the Alloy were caused by an unusual condition which has been obviated. A number of holes had been bored in the grinderstank in order to obtain samples of grinder exhaust gases. These holes were adequately blocked with rubber stoppers at the termination of the tests on the mill, but in time they became unplugged, allowing a large amount of alloy dust to fly into the room during grinding. At Dr. Kehoe's request, the air samples were taken at several levels near the stack which is beside the grinder pan. Unfortunately, the sampling apparatus was placed close to these holes and the very high results noted were obtained. The sampling device was removed before the results were calculated and consequently investigated, so that a series of check samples with the holes securely plugged could not be taken this month without undue effort and loss of time. However, the request of Dr. Kehoe will be borne in mind, and the next samples taken at the grinder pan will be at different levels.

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EWG/ICR*

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ANALYTICAL DATA

Place	Height from Floor	Time of Run	Pb as Mg/cu.ft.
Smelter			
Sludge pit door	5 ft.	24 hrs.	.0059
Alloy			
First floor			
#3 grinder	5 "	24 "	.0059
" "	5 "	8 "	Ng
Second Floor			
#11 Pot room	5 "	24 "	.0019
#12 " "	5 "	24 "	Ng
#13 " "	5 "	24 "	.0059
#11 " "	6 in.	24 "	Ng
#12 " "	6 "	24 "	.0019
#13 " "	6 "	24 "	.0004
#3 grinder pan	1 ft.	24 "	.098
	3 "	24 "	.250
	4 "	24 "	.0059
	5 "	24 "	Ng
	6 "	24 "	"
Cooler	6 in.	24 "	.0019
B Building			
First Floor			
Air duct (by elevator)	6 in.	24 "	Ng
" " (Opposite ")	6 "	24 "	.0004
" " (Lewis Pump)	6 "	24 "	Ng
" " (Opposite Lewis Pumps)	6 "	24 "	"
Lewis Pump #2 (top)	6 "	24 "	.0019
Centrifugal pump	6 "	24 "	Ng
Third Floor			
Air duct (bet. 1-3)	6 "	24 "	Ng
" " (" 5-7)	6 "	24 "	.0540
" " (" 2-4)	6 "	24 "	.0059
" " (" 6-8)	6 "	24 "	.0059
Fourth Floor			
#7 front	6 "	24 "	.0019
#8 "	6 "	24 "	.0019
#9 "	6 "	24 "	Ng
#10 "	6 "	24 "	"
Fifth Floor			
Air Duct (bet. 1-3)	6 "	24 "	.0004
" " (" 3-5)	6 "	24 "	.0019
" " (" 5-7)	6 "	24 "	Ng

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