

Industrial Consul
Investigation



Reorder No. 11121 $\frac{1}{3}$

PARK BRAND FOLDER
HEAVY WEIGHT

7-568
From the desk of
DR. ROBERT A. KEHOE

Telephoned Mr. Mitchell and advised
that furnace should be handled. Suggested
possibility of study of his own excretion
if he desired. He stated he was
symptom free and also that the furnace
in question was not being used at present. If
it should be restored to use he will decide
what is to be done at that time.

RE 0018316

May 6, 1941

Mr. C. P. Mitchell of Palmer Company, 26 Clay Street, St. Bernard, (Un. 7809) called.

Are manufacturing glass tubing for thermometers, melting about 100 lb. q.d. in open silica brick furnace. Natural gas used for fuel; flame playing directly in glass. Combustion products and any fume discharge into room (30' x 30' x 15'), there being no stack.

Ingredients in furnace:

	<u>%</u>
Sand	53-58
Red Lead	25
Soda Ash	10
Feldspar	3
Borax	3
Arsenic	0.5
Manganese dioxide	0.25
Sodium nitrate	3.0

Charged at 2000° F. and heated to 2500° F. in 4 hours, held for 24 hours, dropped to 2000° F. for 24 hours and recharged. No visible fume but there is haze in room. Windows cloudy and noticeable deposits have accumulated on walls, floors, sills and throughout remainder of building. These became noticeable after initial 2 weeks of operation and have accumulated in past year. Three men exposed; no medical supervision. Mr. Mitchell has had worst exposure. Has had no symptoms but has lost about 10 pounds. Other men are well.

Sample of deposit from walls brought in for analysis.

Report is attached.

Willard Machle, M. D.

KE 0018817

N19749.01

A sample of dust submitted by Mr. Mitchell, Palmer Thermometer Company. This dust was collected in the room in which the glass making furnace operates. The charge of the furnace is as follows.

	<u>Percent</u>
Sand.....	53-58
Red Lead.....	28.00
Soda Ash.....	10.00
Feldspar.....	3.00
Borax.....	3.00
Arsenic.....	0.50
MnO ₂	0.25
NaNO ₃	3.00

The dust was soluble in acid, except for a small quantity of carbon particles. The following metals were present in the dust.

<u>Metal</u>	<u>Percent</u>
Mn.....	0.18
Pb.....	30.00
Sn.....	--
Al.....	2.20
Cu.....	0.18
Ag.....	0.00
As.....	2.04

Sample Received: 5-6-41

Sample Reported: 5-14-41

KE 0018818

N19749.02