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DEPARTMENT OF PUBLIC HEALTH

ROOM 630, CITY HALL ANNEX, PHILADELPHIA 7, PA.
Division of Air Pollution Control
and Environmental Sanitation

September 28, 1955

Dr. R. A. Kehoe
University of Cincinnati
College of Medicine
Cincinnati 19, Ohio

Dear Dr. Kehoe:

An industrial firm in Philadelphia, engaged in electroplating, plates lead and tin on copper wire. The metal source is an anode containing 70% lead and 30% tin. The tank solution is made up of 20% fluoboric acid, 5% boric acid, 20% lead fluoborate, and 10% fluoborate.

The company plans to make atmospheric tests at this operation for the determination of possible adverse health conditions. We advised the company to test for lead and fluorides. In regard to fluoride analysis, we plan to advise the company to use titrimetry involving thorium nitrate or colorimetric with zirconium-alizarin. For lead analysis, we suggest the colorimetric method with dithizone.

We are primarily interested in having your opinion regarding the suitability of the dithizone analysis for lead in the presence of fluorine. If convenient, will you please let us have your opinion in this regard?

Very truly yours,

B. C. Lucas

B. C. Lucas, Assistant Chief
Industrial Sanitation Section

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