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BROWN AND CALDWELL
CONSULTING ENGINEERS

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WATER AND WASTEWATER TREATMENT
RATE STUDIES · VALUATIONS
CHEMICAL & BACTERIOLOGICAL LABORATORIES

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January 12, 1965

E-643B

Mr. A. M. McKinnon
Director of Public Works
City Hall
Mountain View, California

MONITORING FOR CYANIDE IN WASTEWATER

Dear Mr. McKinnon:

Last November you requested a recommendation in how to ascertain that industries with plating wastes are meeting city requirements for conversion of cyanide to cyanate before discharge.

Our laboratory has made a brief literature search to find an acceptable field or simplified laboratory procedure, assuming that precise quantitive results are not necessary. Primarily because of interference problems, no easy shortcut was found. One procedure, developed for oil refinery wastewater, might be adapted but utilizes reagents which must be freshly prepared each day. It would also require trial and possible modification by a qualified chemist to determine reliability for the wastewaters in question. Our charges for such a trial could amount to as much as $200.00.

Our fee for analyses of individual wastewater samples for cyanide is $15.00; lower prices prevail for concurrent samples.

Under the circumstances I suggest that the best procedure is to visit the two industries about two to four times per year to ascertain that the conversion equipment is being utilized, and to have an analysis made for cyanide about twice per year on composite samples of the sewage plant effluent. A further check-up should be made if dead fish are found in Mountain View Slough. If the industries will not permit in-plant inspection, you might require them to provide a certified analysis of their discharge at appropriate intervals.

The toxicity of cyanate is so low that monitoring for its presence is not necessary.

Very truly yours,

BROWN AND CALDWELL

John T. Norgaard

John T. Norgaard

tvg