

ETHYL GASOLINE CORPORATION

25 BROADWAY

NEW YORK

Penns Grove, N.J.,
March 24, 1928.

INTER-OFFICE
CORRESPONDENCE

CC: Messrs A. E. Mittnacht
J. L. Stecher

Dr. Robert Kehoe,
College of Medicine,
Cincinnati, Ohio.

Dear Dr. Kehoe:-

I wish to call your attention to a condition that is current here at the Blender plant, and upon which I would appreciate an expression of opinion from you.

Here of late we have been receiving quite a few returned empty ETHYL Fluid drums which contain an excessive amount of scale and rust on the inside which cannot be satisfactorily removed by the present equipment at the blender. If the drums are refilled without removing this scale, a possible hazard will later present itself during the field mixing of fluid through some of the scale getting into the eductor and resulting in a stoppage. The removal of sludge or scale from the eductor in the field being obviously a dangerous practice, the only place to guard against it would be here at the plant.

At the Eastern Alcohol Corporation's plant, situated adjacent to the Tetra Ethyl Lead Plant, we have made some drum cleaning experiments on their chain-tumbling machines and found that this equipment completely removes the scale from the drums and gives them a clean smooth interior surface.

Now, our plan of operation would be something like this: A drum, having been cleaned as thoroughly as possible with our own equipment, is inspected and found still to contain an undue amount of hard scale, (which may be loosened later by the solvent action of the fluid or by the impacts that the drum receives during transit). The drum then is to be sent to the Alcohol plant to be tumbled. We propose to use only our own labor so that this operation will be under medical observation. The plug is quickly removed from the drum, chains and weak sulphuric acid are inserted, the plug returned and the drum set up on the machine. After ten to fifteen minutes revolving, the scale is completely removed. The drum is then rolled to a lead-lined trough, the chains removed by a hook and placed in a bucket of strong acid, and the waste acid poured out. About one quart of alcohol is then placed in the drum to prevent rusting during the time that it is returned to the blender, where the drum is again put through the regular cleaning process (alkaline washing to neutralize any remaining acid). Incidentally the weak sulphuric acid used to help "cut" the scale should also decompose any harmful organic lead compounds.

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John Schaefer - Dr. Kehoe 3-24-28 #2

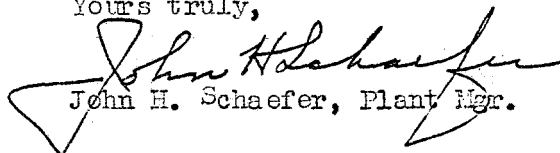
Frankly speaking, there is no forced-air hood at the Alcohol plant, the only ventilation being the natural passage of air through the large work-room.

Do you approve of the above procedure from the Medical viewpoint with respect to any hazard? The only weak point as I see it is during the time that plugs are first removed from the containers to insert the chain and acid. Even so, there is only a momentary possibility of exposure to any fumes from the drum.

Please let me have your comments and advice on this matter at your earliest convenience. As you will realize these drums eventually must be cleaned of scale, and I ask your help to work out the best method from the medical and operating viewpoints. At the present time, I think it inadvisable to install any costly equipment of our own to do the job since we shall only want to scour about fifty to sixty drums a month.

, With best personal regards, I remain

Yours truly,


John H. Schaefer, Plant Mgr.

JHS:B

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