

The Hygienic Problem of the Ethyl Gasoline Corporation

A The control of the direct industrial hazards listed in the order of their immediate importance in terms of (a) the occurrence of cases of poisoning and (b) the existence of potential dangers which are not under control.

1. Hazards in cleaning storage tanks used for mixing leaded gasoline at mixing points. (Normal decomposition as well as results of boosting). Present regulations adequate if applied but not applied without exception.

18 cases of poisoning to present time with 3 fatalities and at least 1 case of prolonged mental disturbance with questionable outcome.

Difficulties associated with inadequate information in refineries, together with lack of mechanism for maintaining an informed and alert personnel in refineries, by reason of overlapping authority and changes in management. Also lack of continued effort on part of E. G. field staff.

Study all storage tanks, oil & kerosene & benzene.
Suggestions -

1. Redistribution and study of regulations by executives in charge of manufacture, and by refinery safety and managing staff - personal visits by E. G. field representatives.
2. Posting of metallic signs at manhole of all blending tanks - posting and checking to be attended to by E. G. staff as routine duty. *Personal duty.*

Question - To whom should this job be assigned, to a few men, or to a large number so as to correct situation promptly?

2. Hazards in the cleaning of gasoline pumps.

1 case of poisoning of mild severity to present time.

The potential hazards may be considerable, but at present are entirely without recognition or control. Much information needed as to (a) number of pumps, (b) normal life in operation of pumps, (c) present practices in obsolescence and care and repair of pumps and pump parts, (d) eventual fate of old pumps and old parts, (junk yards).

3. Hazards in the transportation of drums of Fluid, as well as their unloading and storage at refineries.

Up to present no cases of poisoning, some narrow escapes and numerous potential dangers.

Problem at present out of hand with little real control at hands of E. G. Corporation.

Probably best handled through manufacturing department (Schaefer).

Safety of Liquors -

4. Hazards in gasoline storage tanks, at bulking points (~~where spiked or boosted with fluid or where operated normally~~), and at filling stations.

*One time investigation - not in
exp. - should be done.*

What is known about the care, cleaning, repair and eventual fate of these tanks. The absence of trouble up to the present not necessarily indicative of safety.

5. Hazards of the mixing personnel.

Greater uniformity desired in installation, maintenance and operation of mixing plants. Irregular practices to be avoided, especially mixing in tank cars, emergency mixes, spiking etc. Refinery personnel to be continually instructed and checked. (Lewis, selected members of field staff, and Medical Department.)

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Note

All the items listed above are concerned with the operation of business in the United States and Canada. The same problems exist outside the United States and are aggravated by a greater lack of detailed knowledge on the part of the staff of foreign distributors and by less effective (in general) medical supervision on the part of Ethyl Export Corporation. Medical contacts are necessarily limited, and to some degree, unsatisfactory.

Note

Reference has not been made to the hazards of the manufacturing operations which have been an indirect responsibility of E. G. Corporation and its medical staff, and which may soon become a direct responsibility. Obviously this is a big item in the total problem. The medical department of the Corporation must look at the organization of present safety facilities with this problem in mind.

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B The study of certain occupational hazards which are not amenable to control, at present, by Ethyl Gasoline Corporation, together with certain hazards to the public. (Studies for which this laboratory must accept its responsibility not only to the Corporation but to the public. In these studies the Laboratory requires the assistance and cooperation as well as the financial support of the Corporation). Listed in order of potential importance.

1. The hazard of the garage mechanic. Some slight evidence of increased lead exposure on the part of these workmen has been detected. What is the significance of this now and in the future?
2. The general public and the lead content of exhaust gas, street dust, lead dusts on the earth's surface. The study of this problem, adequately, involves
 - (a) Re-examination of exhaust gas problem in animal experimentation.
 - (b) Re-examination of adequate number of random samples of street dust, dust along highways etc. in relation to normal soils and dusts.
 - (c) Examination of street air, air in tunnels as compared with air uncontaminated with exhaust gas. Working out diffusion curve of exhaust gas.
 - (d) Maintenance of the study of the general levels of lead intake to find, if possible, the increment of lead intake by the general population, due to the use of leaded fuel. Required because of time factor and volume factor of the business.

Note

The general problem of lead toxicology must continue as must also the study of the lead hazards directly and indirectly associated with the entire industry. For this work it is necessary to initiate and carry on cooperative work with the research laboratories of the Corporation as to the physical chemistry of the lead compounds involved. Information as to the degradation products and the conversion products of Tetra-ethyl Lead is needed, and accurate methods for the identification of these various compounds is required.

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