

It will only be possible in the few minutes that have been allotted to me to cover the most outstanding hazards associated with toxic materials.

First, from the standpoint of the number of employees exposed and the general presence of the material throughout the Refinery, one would have to list hydrogen and organic sulfides. Prior to this survey, several cases of serious eye irritation came to the attention of the Medical Division from a low grade exposure of rather long duration to sulfides. At another location this survey disclosed that there was a rather serious possibility of eye irritation from the presence of hydrogen sulfide. Before any action was taken on the recommendation, such as instigating a detailed study of this location and recommending adequate ventilation, several eye cases reported to the hospital for treatment from this unit. There still exists the need for a detailed and quantitative investigation of these sulfides in many other units. This gas has been responsible for very serious, acute poisoning and some cases have resulted in fatalities. Under the existing conditions, the precautions used, and the concentrations of sulfide that are now found, it is the opinion that the danger is not only eye irritation, but possibly chronic systemic poisoning from low concentrations. The currently used sulfide detector is not sensitive enough to pick up concentrations of these gases which will produce physiological effects. An adequate appraisal would depend upon using absolute quantitative chemical methods and integrated samples.

There are at least five skilled crafts where possibility of plumbism exists. To date no investigation of this problem in the nature of either atmospheric samples or lead excretion values of body fluids has been carried out. This latter will soon be undertaken by the analytical laboratory.

Mercury is extensively used by the laboratory analytical group, the research engineers, and handled in large quantities by the Instrument Men.