These methods are standard for Industrial Hygiene practice.

DISCUSSION

Several engineering and health criteria indicating a need for a re-evaluation of the oven room in Department 14 were mentioned in a letter to Mr. W. E. Leeder, dated March 17, 1964. Recent chemical analyses of air samples collected within the oven room indicate diacetone alcohol vapor concentrations exceeding the threshold limit value. Diacetone alcohol ordinarily presents only a low degree of hazard to health in industrial handling. While capable of causing systemic injury at high concentrations, diacetone alcohol has good warning properties (irritation of the eyes, nose, and throat) so that acute systemic injury, even mild narcosis, should not occur under the normal conditions found in industrial operations. There are no reports in the literature of toxic effects to humans resulting from the industrial handling of diacetone alcohol. However, the literature also states that there is not adequate data available upon which to establish a safe level for prolonged and repeated vapor exposure. The threshold limit of 50 P.P.M. is probably based upon human comfort. Table VI indicates that employees working within the oven room are exposed to concentrations at their work stations exceeding the threshold limit value. Recommendation 1 was made on the basis of empirical and chemical data. If it is not possible to correct the ventilation system within six months, it may be advisable to have kidney and liver function tests performed on the oven room employees. It might be added that these employees should not be needlessly alarmed particularly if these tests can be performed in the course of a routine physical examination.

Employees in Department 33 are exposed to solvent vapor levels below the threshold limit value. Table I indicates that the employee at the open dip tank receives an exposure of 650 P.P.M. This man's exposure when considered over an 8 hour day is below the threshold limit for methyl ethyl ketone. It might be suggested that the local exhaust ventilation on the cementing bench be enhanced by extending the hoods to the area where parts are painted.

Tables II and III indicate employees in Departments 07 and 09 are exposed to toluene vapor in concentrations below its threshold. Table III indicates that raw rubber in the containers by the various sheeter mills provides a source of toluene vapor exposure. This concentration can be minimized by providing lids for the containers. A recommendation was made to this effect.

Table IV indicates the trichlorethylene degreaser is leaking. At the time of sampling it was recommended that the windows

VMG-31-0000270