

UNION
CARBIDE

Mr. J. P. Green
Linde Division
Speedway Factory
4801 W. 16th Street
Indianapolis, Indiana 46224

January 24, 1966

Medical

Mr. K. D. Moslander
Mr. E. D. Green
Mr. H. W. Sanz
Mr. W. Krassick
Dr. K. S. Lane

Industrial Hygiene Survey
Pipe Cleaning and Dept. 022

Dear Mr. Green:

On January 19 and 20th, 1966 a survey was made of the above areas to evaluate the potential health hazards from the use of trichloroethylene in the pipe cleaning area and of possible solvent vapor decomposition in the Dept. 022 welding area.

In the pipe cleaning area the present practice is to saturate cloth swabs with trichloroethylene and pull them through the piece to be cleaned. Local exhaust ventilation is supplied for both ends of the pipe while this is done. Vapor concentrations of trichloroethylene at the breathing zone of the operator performing this range from 50-75 parts per million which is below the threshold limit value of 100 parts per million. Air samples taken in adjacent areas ranging from 20-80 feet away did not indicate the presence of trichloroethylene nor was it detectable by odor. No vapor concentrations were detected at the welder stations which are approximately eighty feet away.

It appears that as long as the exhaust fans along the wall of the cleaning area are operating and the local exhaust units properly used that trichloroethylene vapors are under control. Containers should be kept covered and swabs and rags should be placed in covered containers after use. It is not felt that partitioning off this area is necessary,

It should be pointed out that the welders themselves use chloroethene to spot clean pieces to be joined by welding. If this material is not allowed to evaporate before commencing to weld, there can also be decomposition of these vapors to irritating fumes. Containers of this material should also be kept closed and not used in open pans which remain in the same area.

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Air samples for ozone were also taken in the welding area and none was detected at any station. It was also not detectable by odor.

In view of the present work schedule in these areas it is not felt that over exposure to vapors of trichloroethylene or decomposition products is occurring.

The rest of the plant was inspected and the following items were noted.

1. In other welding areas open containers of chlorothene were noted and it is suggested that the use of proper containers be reviewed with the operator's. Potentially this practice could lead to complaints similar to those investigated in O-22 dept.
2. Since the grog mix used to fill acetylene cylinders contains silica flour and asbestos it is suggested that this area be checked to ascertain that exhaust ventilation is adequately controlling the dry materials as they are dumped into the blenders. Much dust was noted on the floor and adjacent structural members.
It would also be advisable to schedule a yearly chest x-ray for the personnel performing these operations in view of potential silicosis or asbestosis.
3. Review the new epoxy paint spray system exhaust and ascertain that effluents are not in close proximity with adjacent air intakes.

No other conditions were noted that might be considered hazardous to health. If you have any questions or further problems please let us know. Thanking you again for the courtesies shown, I remain.

Very truly yours,

Leo J. LaFrance
Industrial Hygienist

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