

3. Hot work permits - What practice was used for permitting welding and cutting in your plants? Were these documented? Are work practice manuals available? Were explosimeter readings made?
4. First Aid and Medical Calls - Are there any records of men being overcome or inebriated by vinyl chloride? Exposure much greater than 10,000 ppm would be necessary to produce these effects. Unconsciousness would indicate several hundred thousand ppm (20-30%).
5. Deliberate sniffing - This is hard to document but no doubt resulted in exposures to greater than 10,000 ppm.
6. Plant or Operation Logs - Some plants maintained diaries with narrative records describing leaks, spills, accidents, etc. Have these been kept? Interviews with old or retired employees may be of extreme value.
7. Operating manuals and procedures - Past plant practices may give clues to exposures concentrations. The following may give clues to past exposures: Tank entry procedures; frequency of cleaning kettles, filters, valves and other equipment, use of respirators, blowing or pumping of materials and frequency of spills.
8. Industrial Hygiene Measurements - Even limited measurements will be of value in documenting past exposures. Not only should company records be searched but federal, state or local industrial hygiene reports may be available.

It is recommended that a very small committee of industrial hygienists be formed to study this problem. They may wish to employ an outside consultant to coordinate company activities and to visit plants. This group could then assign estimated exposure concentrations to various operations such as changing filters, cleaning valves, etc depending upon whether the plant had indoor or outdoor construction, open sewers and other contributing factors. General ventilation design may be useful information. Based on estimates of the time spent by the employee in each operation a time weighted daily exposure could be calculated for job classification in each plant. This will require considerable time, expense and ingenuity, as well as commitment by each company, but it is essential in relating illness to degree of exposure.

Management must understand the importance of this problem. Unless we accurately describe the degree of exposure men had in years past, there will be no defense against more restrictive governmental controls imposed as the result of animal studies. The cost of these unnecessary controls will increase the cost of PVC. This cost must be weighted against legal and other considerations.

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