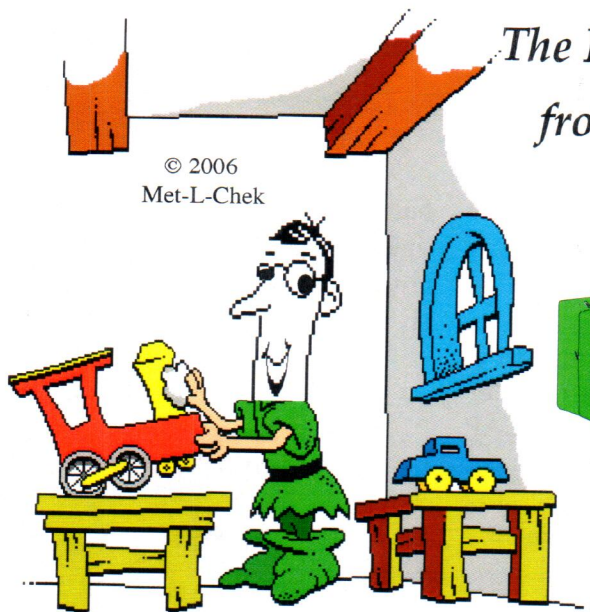


The Penetrant Professor from Met-L-Chek®



SUBJECTS OF INTEREST

In the last issue of THE PENETRANT PROFESSOR, we discussed the popular subjects that had been addressed in these pages over the past ten years or so. This issue will continue that discussion.

ENVIRONMENT

Environmental issues have been a frequent subject, particularly with regard to the disposal of penetrant materials and also the subject of VOC's (Volatile Organic Compounds). The effluent from water washable penetrants can often be disposed into the municipal sanitary sewer system, especially if these penetrants are surfactant based and are free of any petroleum solvents. But this depends upon the criteria established by the local POTW (Publicly Owned Treatment Works). POTWs in different locations frequently have differing criteria, even if they are in the same

geographical area. One can simply not assume what any particular POTW will allow into their system. However, in the Los Angeles area, the general rule is that the POTW will accept emulsified oils if the concentration is less than 600 parts per million. Tests have been made by others to estimate what the usual concentration of penetrant is in the effluent stream from an operating penetrant system that show that the effluent frequently is at this concentration or lower, and is therefore OK to put into the sewer. But there are two important points that must be kept in mind. The first point is that "Dilution is not a solution for pollution". One may not purposely dilute the effluent stream to bring it to the concentration that is acceptable. It is against the law to do

so. The second point is that the effluent concentration is measured at the boundary of the company, where the effluent leaves the company property and flows into municipal piping. This means that if the exit piping collects water from sources other than the penetrant line, it increases the dilution, decreasing the penetrant pollution. Those water sources could be from sanitary facilities, precleaning operations, kitchens, or other sources. Surfactant based penetrants have a second advantage in that they contain no VOCs. While conventional penetrants contain petroleum solvents, the particular solvents used in most penetrants are extremely low in VOCs. If you have restrictions on VOCs, it is wise to review exactly what you are using, and whether they contribute to your VOC output. If so, there are often simple alternatives to relieve this situation.

Color of the effluent often is a problem for municipal inspectors, even if the concentration is within acceptable limits. The color can often be eliminated by using common bleach, particularly if the



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