munication to the operators of the unit and other personnel working in the unit, who may not otherwise be aware of the type of work being performed in their area of operation. This can prevent them from possibly taking a sample or draining a line, which would affect the area where the work is being performed.

After the repair work has been completed, the maintenance supervisor checks the work site and determines to his satisfaction that all work is completed. He then designates on the permit that the job is completed and returns the permit to the operations supervisor.

The operating supervisor checks the work area and determines to his satisfaction that the conditions are such that the equipment can be returned to normal service. This would include determining that the connecting lines have had their blanks removed, all lines are connected, all lockouts have been removed and the vessel closed up and ready for service. This should complete the permit.

In summary, a work permit is nothing but a check-list that formalizes a communication between people requiring a job to be done and people performing the job in order to obtain the desired result. This is effective communication. It is of no more value than the effort expended in completing it. It provides a means for the elimination of assumption. When we assume, we have made our first step towards trouble.

RESPIRATORY PROTECTION

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This presentation on respiratory protection is a report on a few of many impressions gleaned from representing the National Safety Council since 1963 on the A.S.A. (then U.S.A.S.I., now American National Standards Institute) Z88 Code on Respiratory Protection.

There are two views of standards. Some maintain that standards are the answer to the world's problems. Others dispute this, arguing that standards are only legal outs, which operate only to encourage compromise and easily-achieved performance, and that they serve no useful purpose to the common man who is not a fool. The answer as to the real value of standards is probably somewhere between these two extreme viewpoints. Standards are certainly not a panacea; they are no better than the paper on which they are printed if people do not understand their background and intelligently and honestly apply them.

The hazards of chemicals are best understood when chemicals are seen as part of a system. The system in this case consists of three parts: (1) a human being; (2) an environment; and (3) control by appropriate means such as ventilation, engineering changes, or protective devices (respirators, masks, hoods, or breathing apparatus.)

Some chemicals will fume when mixed (as a mixture of glycerine with HTH); some will ignite or erupt (model fuel = 25 per cent nitromethane in methanol with HTH); and other chemicals will explode when mixed with air and ignited by a spark (as the two drops of carbon disulfide with air in an explosion gallery with a spark pump.)

A philosopher once observed it is better to light a candle than to curse the darkness. Darkness is so widespread on this subject, I am lighting three candles, using as my ignition source chromium trioxide with a drop of acetone. One candle is dedicated to you,