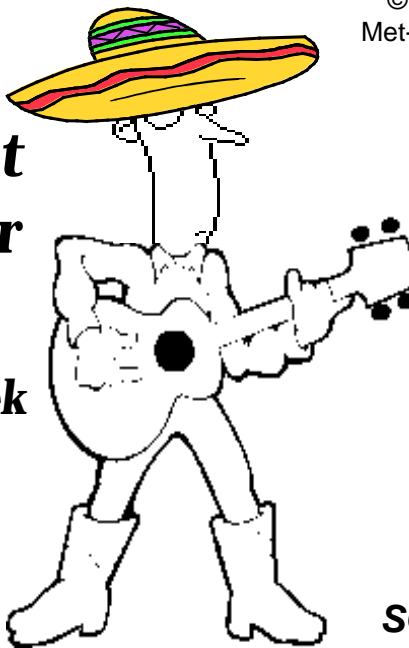
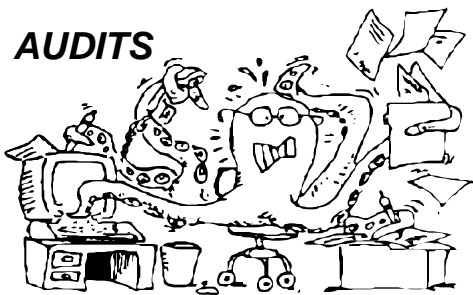


**The**  
**Penetrant**  
**Professor**  
  
**from**  
**Met-L-Chek**

©  
Met-**AUDITS**

Every once in a while we get up on our high horse in righteous indignation. We know that this happens to almost everyone from time to time, and we hope that this episode will strike a familiar note with our readers.

Met-L-Chek has two new cleaners available, both of which have approval under SAE AMS 2644. However, because the QPL AMS 2644 is only updated periodically, these two new cleaners do not appear on the currently published QPL. One of our users was recently audited, and the auditor advised that the use of our new cleaner was not allowed. When we attempted to assist the customer by discussing the approval with the auditor, and FAXing a copy of our approval letter, it was to no avail. The auditor claimed that our letter of approval from the Air Force was insufficient, because the cleaner was not listed on the QPL.

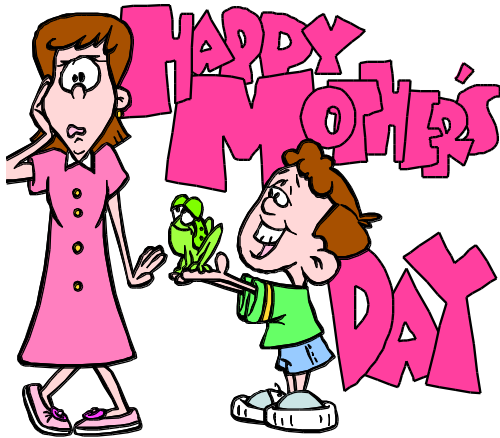
Now, what do the applicable specifications say? Both ASTM E 1417, and its predecessor, MIL-STD 6866 said the same thing, and we quote: "Only materials listed or approved for listing on QPL AMS 2644 shall be used for penetrant examination." That is it in a nutshell. The writers of these specifications had foreseen the problem which would be encountered in a situation where a product was approved, but when the next QPL was not to be published until later.

Was the auditor wrong? Yes. The auditor had either not read the specification carefully enough, or he had misinterpreted it. Unfortunately, often in situations like this, the auditor will dig in his or her heels and not listen to any argument or review the relevant documents or specifications.

**SO WHAT ARE THESE TWO NEW CLEANERS ?**

They are R-503 and R-504. Both of these are specialty products which are extremely well suited for "proving up" indications. They evaporate quickly, and are supplied with a dispensing tube which is similar to the dispensing tube which is found on aerosol cans of WD-40. The advantage of the dispensing tube is that a small amount of the R-503 or R-504 can be dispensed directly onto a Q tip or a small brush. This assures that the solvent used to "prove up" indications is pure and uncontaminated, and that there is no fluorescent penetrant in it to interfere with what the inspector sees. Since the solvent remover is in an aerosol can, it also remains free of any contamination, and does not evaporate. At the ASNT meeting in Phoenix in October, we gave away samples of these solvent removers in our hospitality suite. The results have been very positive, and several companies have written the use of these products into their specifications, including Lockheed-Martin.

Do you need this handy and improved method of using a solvent remover for "proving up" indications? If so, give us a call.



**HOW TIMES HAVE CHANGED**

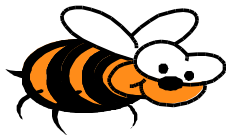
This was taken from the July-August issue of NON-DESTRUCTIVE TESTING, which was the predecessor of MATERIALS EVALUATION. An advertisement reads as follows:

"up to \$1.57 per gallon DOWN THE DRAIN! •Its a fact — up to \$1.57 worth of silver goes down the drain with each gallon of "fix" you discard. Stop this waste!"

Just think — 45 years ago, the worry was about \$1.57 worth of silver, and no one was concerned at that time about the environmental consequences of silver disposal. Times have certainly changed.



**PENETRANT PROFESSOR** is an occasional publication of Met-L-Chek. To receive it, call or FAX Beverly Clarke.



**CRACK DETECTION**

Sometimes one comes across a very simple example which demonstrates how well the penetrant process works. This was brought home to us recently via a kind of a complaint. We had a phone call from a person who was conducting research on the nature of cracks. A cracked specimen was examined with penetrant so as to locate the position of the crack. Once located, the specimen was sectioned, so that the nature of the crack could be determined. However, when this was done, there was no penetrant left in the crack to define it. The developer had removed the penetrant from the crack so completely that it no longer was present in sufficient quantity to assist in studying the physical characteristics of the crack. Does developer assist in the penetrant inspection process? You bet that it does.



**SPOTLIGHT -- RICK**

You may find that Rick Valdez answers the phone when you call Met-L-Chek. Rick has been with Met-L-Chek for almost 20 years, and his experience spans everything from production to answering technical questions. Rick's expertise, though, is in shipping. His knowledge of how to ship products the best way, to any part of the world, in the least time, and at the lowest cost, is encyclopedic. All of the details about hazmat shipments, air shipments, minimum ocean freight charges, customs invoices, or the length of time for UPS shipments to get to a location are at his fingertips. You will find Rick to be pleasant, informative, and interested in what you are calling about. If you want to know when an order was shipped, or if you need advice on a product, or if you need something quickly, call Rick. You will enjoy talking to him in either English or Spanish, and your question will get immediate attention. Rick is an ardent sports fan, has a seadoo, and has recently ended a long bachelorhood.

**The Penetrant Professor**



May 2000