



The
March 2009
Penetrant
Professor
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**COMMITTEES AND
SPECIFICATIONS**

We are members of most of the relevant committees that develop and write specifications. These committees, such as ASTM E-07 and AMS Committee K, usually meet twice a year. The meetings are sometimes lively and interesting, but, like many meetings, are sometimes dull and tiresome, going over and over small items in the specification that a member has some particular problem with. Although the committees usually try their best to make the specifications useful, informative, and easy to understand, sometimes situations come up that show that these efforts are not perfect.

One such example surfaced recently. An inspector was working under a procedure or speci-



fication that required testing the water washable penetrant for water content. To determine the water content, this specification referenced ASTM E-1417. The wording of E-1417 reads as follows: "...Test Method D 95 or the Karl Fischer Method as described in Annex A1." The inspector had followed the specification, and the water content had been determined by the Karl Fischer Method. Under audit, the inspector was asked to show the test results from testing via ASTM D 95, which he was unable to do, and it was then necessary to refer to the wording of ASTM E-1417.

We have found that this is not an infrequent situation.

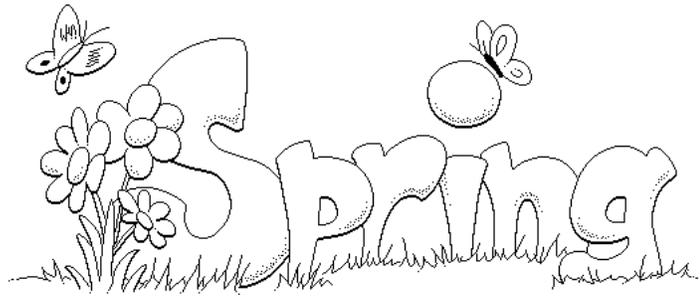
ASTM D 95 seems to be foremost in peoples' minds when they refer to the water content test. There just seems to be something about the present wording of the ASTM E-1417 specification that results in this situation.

As it turns out, the ASTM D 95 test method is no longer used as frequently as the Karl Fisher Method, which is easier, less expensive, less time consuming, much safer, and more accurate than D 95. Going back to the E-1417 wording, it would probably be helpful to reword this portion of the specification by reversing the positions of the two acceptable test methods, placing the Karl Fischer Method first, and the D 95 method second. But this is just one example of the work that the committees do. Each time that a specification is revised, the committee

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usually feels that the job is done and that no future modifications or changes will crop up. But, as this example shows, that is not the case, and the pursuit of perfection in specifications is an ongoing process



**ASNT Spring conference
March 15 -19, 2009 in St.
Louis MO**

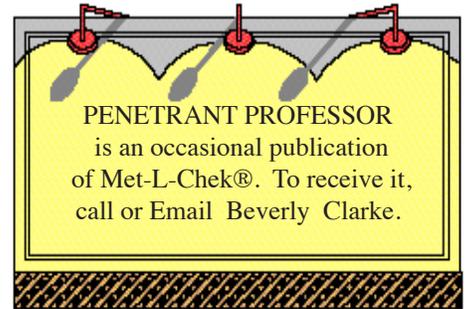
SIGNS OF THE TIMES

It has become commonplace for businesses to be inspected or audited, as most of us know. But sometimes we question the ability of those who arrive at our door to see if we are in compliance with this, that, or the other thing. We recently had a perfect example of this. One of our customers was inspected, and the inspector examined the MSDS for our product. There he noted that one ingredient was ethoxylated alcohol. When he saw this, he assumed that it was alcohol, maybe like rubbing alcohol or maybe like whiskey, for all we know. Since the penetrant was in an open tank, he wanted to know if the user had an air quality permit. If the tank really had alcohol in it, this might have been necessary. But ethoxylated alcohol is a totally different product, often an ingredient of soaps and detergents. It gives off no vapors, is not flammable or explosive, and is certainly not subject to air quality regulations. So what was the outcome, even after the inspector had the ingredient explained to him? He insisted on referring the problem to an engineer in his organization.

We hope that the engineer will have the knowledge to solve the problem. But we have a gripe with organizations that send out inspectors who do not have the knowledge required for them to understand what they are inspecting.

A perfect example of this was the inspector who wanted to reject a shipment of our Method C solvent remover because the accompanying analysis did not show that we had measured the fluorescent brightness. This inspector did not understand AMS 2644, or at least, had not read it carefully. But despite that, the inspector wanted to argue the point.

We think that it is incumbent upon an inspecting or auditing organization to insure that the inspectors or



auditors are intimately familiar with the processes that they are inspecting. If they are not, they often can disrupt a manufacturing process by making a call that is incorrect. When this happens, even if it causes costs to increase because of the unwarranted interruption, there is usually no way to recoup the costs that were caused by the inspector's error. This is unfortunate, in our view.

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