TAPPI Test Methods Management Committee moves to strengthen Test Methods development

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Standard methods will emerge from five-year revamping with more clout.

The TAPPI Test Methods Management Committee (TMMC) and the various divisions and committees responsible for the development and maintenance of the Test Methods are very much aware of the importance these procedures have in the industry. Over the years, these Committees have continued to improve the quality and reliability of the published methods.

The ISO TC6 Committee, which met in Munich, Germany, this past September, began the task of establishing the reproducibility and repeatability statements that will become part of the ISO Standards. This concept is not new to the users of TAPPI Test Methods; we have been publishing this information as part of our methods for many years. Our leadership position was recognized by those member countries whose delegates attended that working group session. The important point to remember is that method development must not become stagnant; continued effort must be made to keep these methods at the forefront of technology. Only in this way can we maintain a strong presence within the international testing community.

To continue the development process leading to strong Test Methods, the TMMC has revised the Test Method guidelines under a new title, "Regulations and Style Guidelines for TAPPI Test Methods and Recommended Practices." A task group consisting of TMMC members and representatives from some of the divisions that have Test Method responsibility, under the leadership of James C. Abbott, collaborated to revise and strengthen the development criteria for TAPPI Test Methods. The final draft received approval from TMMC and the TAPPI Board of Directors in the fall of 1993.

One major change reviewed by legal counsel and endorsed by the TMMC and the TAPPI Board of Directors concerns TAPPI's official policy on the use of the word "standard." TAPPI has generally avoided that designation since the antitrust policy was revised in the late 1970s because some believe it connotes "specification." However, most other technical societies in the world use the term "standard" to mean "standard test methods." TAPPI's Test Methods have suffered in their ability to be adopted by ISO because of the misconception that the lack of the word "standard" implies that they may not have gone through a rigorous, volunteer consensus process.

In fact, the use of the word "standard" is not prohibited by the TAPPI Antitrust Policy. Assurance that standardization of products or service offerings have been avoided must take place whether the results are called "test methods" or "standard methods." So from now on, references to "TAPPI Standard Test Methods" will be common practice; but keep in mind that TAPPI documents are test methods and recommended practices, not product specifications.

Some of the practices and terminology related to Test Methods have not changed: categories of methods (although requirements within each category may differ), a regular five-year review of existing methods, and the timing of the balloting process remain as before. But there are numerous changes within the steps of the process; for example, more documentation of resolution of negatives are now required, as are more exact precision statements in all methods. Listed below are the main items from the old guidelines and how they are different in the new requirements:

Old:

Official Methods were required to have a statement of repeatability only.

New:

Official Methods are required to have statements of both repeatability and reproducibility.

Old:

Provisional Methods were not required to have a statement of precision.

New:

Provisional Methods are required to provide at least an estimate of repeatability through testing in one laboratory.

Old:

A method could remain Provisional after review if there were substantive changes needed and precision data were incomplete.

New:

At the time of five-year review, a Provisional Method must either be upgraded to Official or withdrawn.

Old:

TMMC reclassified methods that were overdue for review as Classical if it appeared little or no action had been taken by the responsible committee.

New:

TMMC now has several options (reclassification, withdrawal, extension of deadlines) for Official Methods undergoing review, but for Provisional Methods that are under review and become seven years old, automatic withdrawal will take place.

Old:

The Classical Method category included not only "truly Classical" methods (i.e., those which are technically sound but may have been superseded by advanced technology), but also methods that had been reclassified by TMMC due to inactivity on the part of the responsible committee.

New:

The Classical Method category is reserved for "truly Classical" methods; TMMC will eventually completely withdraw methods that have not undergone timely review by the responsible committee (the new guidelines give TMMC more freedom to act on overdue methods).

Old:

Reference materials were either listed within a method or included as part of the Suppliers List.

New:

Reference material suppliers may no longer be listed in the method, but will be listed in a list of Reference Materials, similar to the Suppliers List, but separate.

Old:

Only full drafts of methods were balloted to the responsible committee.

New:

Ballots on partial drafts, sections of drafts, or particular items will now be allowed.

Old:

Task group chairmen were required to resolve negatives and address all comments before proceeding to the next ballot stage.

New:

Task group chairmen not only will have to resolve negatives and comments, but also will have to document the resolution on a form designed for that purpose.

Old:

The precision section was the only section specifically required for TAPPI methods.

New:

Guidelines now specify several sections which are mandatory (title, scope, significance, safety precautions, procedure, report, precision, keywords, and additional information); this change is an effort to harmonize methods with ISO and make TAPPI procedures more adaptable for global use.

Old:

Former guidelines were vague regarding use of trade names.

New:

New guidelines are more specific about trade names, allowing them to be used in cases where the instrument name, for example, is needed to differentiate the method from another TAPPI method purported to measure the same property; however, specific language will be required to state that, if a trade name is used, there may be other products or equipment which comply and are equivalent to the description in the method, and are acceptable for use according to the method.

Old:

The "Regulations" (which defined the categories and the TAPPI groups or individuals which have jurisdiction over methods) and the "Guidelines" (which dealt with the specific rules for developing, approving, and reviewing methods) were separate documents, the former approved by the Board of Directors and the latter by the Test Methods Management Committee.

New:

Material covered under both "Regulations" and "Guidelines" has been integrated into one document, approved by the Test Methods Management Committee with the advice and consent of the Board of Directors.

A bulleted list of items that task group chairmen (TGC) who are working on a method for the first time frequently wonder about has been placed in the front of the book for easy reference to specific sections. A new section, "Responsibilities of Task Group Chairmen," has been added to easily identify the basic things the TGC is expected to do without having to wade through the more detailed sections on the review and approval process. Also, ways of resolving negatives and comments have been detailed. The TGC checklist has been redesigned, several flow charts have been added to give a visual outline of the process, and the subject index of the guidelines has been revised.

Any Committee Assignments (CAs) in progress prior to the implementation of the new guidelines will be completed using the old requirements. Any CAs begun after November 22 (including five-year automatic reviews) fall under the new guidelines. Therefore, it may be at least five years before all methods have been updated as far as the new precision requirements are concerned.

Some of the major changes involve the Classical Methods. In the new guidelines, a Classical Method is defined this way: "A testing procedure, usually a former Official Test Method, which is no longer in common use, or which has been superseded by advanced technology. These testing procedures are technically sound, have a history of use, and contain a body of literature references that make their preservation valuable. Classical Methods are part of the current set of Test Methods." With the exception of the addition of the words "usually a former Official Test Method," this is the same definition that appeared in the old guidelines.

The problem under the old system is that the system itself allowed methods to become Classical that really did not fit this definition. The Test Methods Management Committee

(TMMC) had the ability to place methods in the Classical category because of a lack of action on the part of the responsible committee. This caused former Official and Provisional Methods to wind up in the Classical category only because they had not undergone a timely review. Thus, a five-year-old Provisional Method that the committee let linger under review without upgrading to Official (usually for lack of a precision statement) could become "Classical," even though it did not "have a history of use," may not have contained "a body of literature references," and may not have even been "technically sound." Some committees desiring to make a particular method Classical would simply let time catch up with them and allow the method to be reclassified by TMMC, without a proper review of its technical accuracy.

The basic idea in the new regulations is that no method may be placed in the Classical category unless it truly fits there according to the definition. TMMC will examine on a case-by-case basis those Official Methods that are not reviewed in a timely fashion. TMMC will then decide on an action (withdrawal, reclassification as Provisional, extension of review time, etc.), but TMMC cannot reclassify as Classical unless the method truly belongs there. Also, Provisional Methods under review can only be upgraded to Official or withdrawn; if a timely review does not take place, it will be automatically withdrawn.

Given all of this background, the committees with Test Method responsibility now face a major task. TMMC has requested that all technical committees review existing Classical Methods to determine if they fit in that category or if they need revision or classification, or both. Also, a motion was passed that Classical Methods which were placed in that category due to lack of activity on the part of the technical committee will be handled as follows:

1. Current methods will be published in the next bound set (1994–1995, to be distributed in August 1994) with no change.
2. Technical committees were requested (in a memo from the TMMC chairman in January 1994) to open Committee Assignments for review of these Classical Methods; the actions taken must result in methods fitting the category they are balloted in or in withdrawal of methods that cannot be revised to be technically sound.
3. Any of these Classical Methods that are not under review by March 1, 1996 (the copy deadline for the 1996–1997 bound set of methods) will be automatically withdrawn at that time.

It will be the responsibility of each committee to determine the procedure it wishes to use to accomplish the review of these documents (for example, discussion at a meeting, timetable for opening Committee Assignments, etc.). Committees were asked to submit a written report outlining their plans, then work with TMMC and TAPPI staff to implement.

It will be readily apparent that these changes are meant to strengthen the precision section within both existing and proposed methods. Not only is the TMMC requiring these changes, but it has formulated a mechanism by which a task group chairman can receive help in determining the required parameters. It is now possible for a TGC to request outside help in developing and evaluating repeatability and reproducibility information. The procedure is simple:

1. The TGC contacts Collaborative Testing Services (CTS) in Herndon, VA, to discuss the project scope and to determine estimated costs of conducting a round-robin test to gather precision data. This discussion should include the establishment of the correct sampling procedure and the distribution of the materials needed for the testing procedure.
2. A cost estimate and outline of the project is then submitted to the TAPPI Technical Divisions Administrator with Test Method responsibility so that funds may be requested and allocated from the Development line item of the Technical Operations Council (TOC) budget.
3. As soon as funding has been approved by the chairman of TOC, the TGC can proceed to obtain the samples required for the analysis and to supply CTS with the required amount of randomized material.
4. CTS will have the responsibility to mail the test samples to the required laboratories along with specific instructions as to the testing procedures to follow. The individual laboratory results will be mailed back to CTS for tabulation. The data will be formulated to meet the requirements for presentation into the TAPPI Test Methods. In addition, the raw data, method of data analysis, and the results will be sent to TAPPI for permanent inclusion in the file for that method.

TMMC hopes that the new guidelines will prove to result in a set of TAPPI Test Methods that are current, accurate, and globally accepted. If you would like a copy of the new guidelines, contact Charles Bohanan at TAPPI Headquarters (404–446–1400, ext. 276).

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