

June 2007

Standards Development Process and Submission of Issues

By Juana Williams

Many of you attending the 2006 regional weights and measures association meetings had the opportunity to hear NCWM Chair-Elect Judy Cardin's presentation on the U.S. system for developing legal metrology standards. Chair-Elect Cardin's presentation on "Standards Development" provided an excellent overview of the system, outlining key elements in the process for submitting a proposal to add new or update existing handbook standards. Frequently, the NIST Weights and Measures Division staff are asked what is the best approach for developing a proposal to ensure that a proposed requirement has the greatest chance of adoption. This article focuses on the initial stage of the process where a member of the weights and measures community fully develops a new proposal that is ready for submission. In this article we take an in-depth look at seven critical components of a proposal: (1) proposed code language, (2) rationale for code changes, (3) positions of parties impacted by the change, (4) reasons for code changes, (5) opposing comments, (6) background data, and (7) recommended action on the proposal, that should be included in a proposal when it is first submitted for national consideration to expedite its movement through the process.

It is exciting to think that as part of the weights and measures community we have the opportunity to shape and influence handbook standards. The process is even more exciting because those standards, once adopted by the States, become law and regulation. These laws and regulations are intended to improve the quality of life and promote commerce. This opportunity is one that not many professionals can say they play a part in, and it is not to be taken lightly since weights and measures laws and regulations typically affect the every day lives of most U.S. citizens and businesses.

As important as it is to fully develop a standard, you first need a working knowledge of the cyclic nature of the process and you need to be aware of some key dates and deadlines that are in place to streamline the process and provide due process of law. The flow diagram in Figure 1. illustrates the shortest possible path where a proposal moves through the process, starting with submission of the proposal in late summer and the completion of the process by its adoption at the NCWM Annual Meeting in July of the following year. The last stages for an adopted proposal, although not covered in this article, are worth mentioning because of the far-reaching impact of a proposed requirement on legal metrology requirements. Figure 2. is included to illustrate the final stages for an adopted proposal where it is published as a handbook requirement that is enforced by field officials after the States legislatively adopt a handbook requirement as law. The last step in this example is where a technical committee uses handbook requirements as the basis for policies or test procedures. Once those policies/procedures are developed, they are published and equipment must comply with these test criteria before being approved for commercial use.

U.S. WEIGHTS AND MEASURES STANDARDS DEVELOPMENT PROCESS

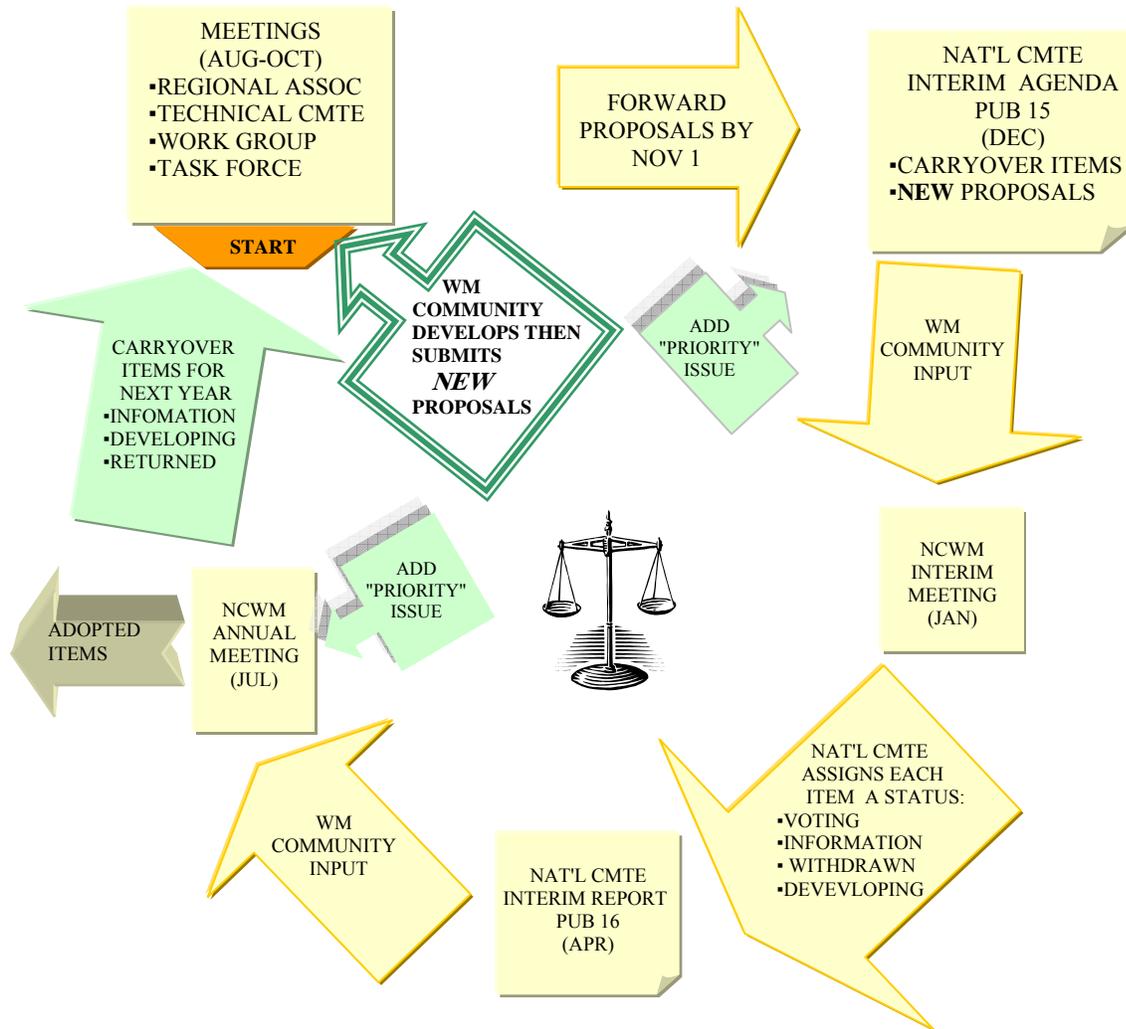


Figure 1. An overview of the weights and measures standards development process that starts in the fall with the submission of a new proposal that receives support by a technical committee by November 1 and ends with the successful adoption of the proposal the following July at the Annual Meeting of the National Conference on Weights and Measures.

KEY:

ADD "PRIORITY" ISSUE—See Introduction Section of NIST Handbooks 44 and 130 for submission policy

CMTE—Committee

NAT'L—National

NCWM—National Conference on Weights and Measures

PUB—Publication

REGIONAL ASSOC—Central, Northeastern, Southern and Western Weights and Measures Associations

WM—Weights and Measures

WM COMMUNITY INPUT—Delivery via (fax/e-mail/postal mail/in-person) of a written position statement on a weights and measures issue that is directed to the attention of the appropriate technical committee

ADOPTION OF WEIGHTS AND MEASURES DEVICE STANDARDS

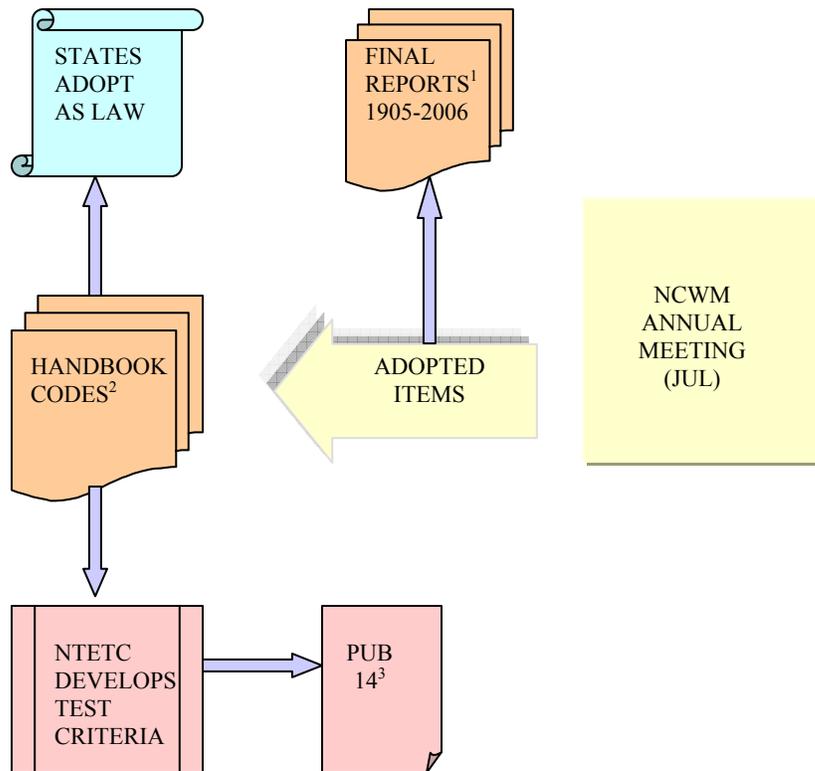


Figure 2. The last stages of the standards development process occur when an adopted proposal (1) is published as a handbook requirement, (2) legislatively becomes a state law or regulation, and (3) is the basis for policy and/or procedure for examination and test of devices to ensure equipment is capable of meeting the adopted standard(s) if placed into commercial use.

KEY:

¹Special Publications for Reports of the NCWM (1905-2006) are available on <http://www.nist.gov/owm>

²NIST Handbook 44 "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices" and NIST Handbook 130 "Uniform Laws and Regulations"

³ NCWM Publication 14 "NTEP Administrative Policy, Technical Policy, Checklists, and Procedures"

NTETC—National Type Evaluation Technical Committee

All new proposals must be submitted in writing to the appropriate technical committee and include all seven critical components. Each new proposal must also include a contact person who is familiar with the issue and is able to address all seven points. This documentation can also be used to alert groups affected by the proposal about possible upcoming changes to handbook requirements. The information is also necessary for the Committee at the national level (the Committee) and later for the weights and measures community to determine whether or not a proposal merits moving forward for national review, discussion, and eventually adoption. Keep in mind that presenting a proposal in this format also allows the Committee to maximize its resources (staff, funding, time, etc.) and gives a proposal maximum exposure and the best chance for success, especially when there are a large number or extremely complex proposals under consideration. Typically, a committee at the national level may have 30 or more agenda items. The Committee works to adequately address each issue; however, the time period available during its meetings is too short to conduct extensive research on an issue. The more advanced work you do, the more likely it will be that your proposal is ready for national consideration and the more likely it will be that your proposal will be successful.

Form 15, which identifies all pertinent information needed for a fully developed proposal, is listed in the Introduction section of NIST Handbooks 44 and 130. This form is designed to help both the submitter and the committee ensure that the minimum information needed to analyze a proposal is available. Submission of a proposal using a single standardized form saves time because it prompts the submitter to provide pertinent information, data, etc., on the issue, and when the form is properly used, it lessens the chance for overlooking or omitting some crucial piece of information that might surface in the final stages of the process and delay adoption of a proposal.

Although no two issues are exactly alike, if your preparation of an issue addresses each point in the detailed manner outlined below, then the issue's chances for successfully moving through the standards development process are greatly improved. Using the outline and checklist below will result in a more thorough and objective analysis of a proposal and help you determine whether or not the issue is of national interest and if sufficient resources were put into the issue so that it is ready to move to the national level. In this article we included some sample text (paraphrased) to demonstrate wording that can be used in a proposal. The seven points the proposal should focus on are listed below. Each point includes a corresponding checklist; however, a complete checklist for all seven points that covers the entire standards development process is also provided in this article.

(1) New or Modified Handbook Language

Cite the new or modified handbook language in the proposal. The proposal must include the exact handbook language that shows the original text to be deleted by ~~striking through~~ the text and include any newly proposed handbook language in text that is **bold and underscored**. This allows the reader to see specifically what will be removed and what is being added to a requirement. Keep in mind that it may be necessary to address and include proposed changes for multiple areas such as suitability of application, design, performance limits, installation, use, maintenance, corresponding method of sale, and means for examination and test to adequately implement a requirement. So provide language that covers all applicable sections of the code. Does the proposal include new or expanded definitions or require the application of some safety,

quality, or procedural standard developed by other standards writing bodies? If so, include these terms and cite the appropriate version of these standards in the proposal. Consideration should be given to an enforcement date if the proposal addresses a problem that has significant legal ramifications or if the requirement impacts older equipment, current marketing practices, or inspection procedures. For example, if a proposal makes it mandatory to retool commercial equipment, ask if this represents significant cost or is even plausible for manufacturers to comply with or to build into new equipment. What is the burden on business owners who must retrofit existing or purchase new equipment? Although a uniform requirement for all equipment in use is more desirable, the private and public sectors may be better served if a requirement is phased in or if older equipment is exempted so that no sector incurs a heavier share of the cost to comply. If this is the case, then it may be necessary to determine a suitable enforcement date(s) for all types of equipment to comply.

A checklist that can be used as a guide for developing this point in the proposal is:

Proposal Criteria Checklist	
Critical Information	Information Checklist
(1) Proposal: Include the proposed new or modified handbook language.	Proposal includes language for: ~ Date(s) of Enforcement ~ Definitions ~ Method of Sale Requirements ~ Multiple Device Codes (list): _____ ~ References to other standards (specify code(s)) ~ Specifications ~ Test Notes ~ Tolerances ~ User Requirement ~ Other (list): _____ _____ Be sure to include all applications that apply.

Here is an example of how proposed changes and new Handbook 44 language should be revised and edited in a proposal. To illustrate that all aspects of a proposed change must be considered, the example also includes corresponding Handbook 130 language, a definition, and new enforcement dates that are excerpted from reports on an issue currently under national consideration. In such a case, the proposal would need to be submitted to two different committees—one dealing with Handbook 44 issues and one dealing with Handbook 130 issues.

Proposed changes to NIST Handbook 44 liquid measuring device sections are as follows:

... **S.2.7. Wholesale Devices Equipped with Automatic Temperature Compensators.**

S.2.7.1. Automatic Temperature Compensation. - A device may be equipped with an **adjustable** automatic means for adjusting the indication and registration of the measured volume of product to the volume at 15 °C **for liters or** (60 °F) **for gallons.**

S.2.7.2. Display of Net and Gross Quantity. - **A device equipped with automatic temperature compensation shall indicate or record, both the gross (uncompensated) and net (compensated) volume for testing purposes. It is not necessary that both net and gross volume be displayed simultaneously.**
[Nonretroactive as of January 1, 2008]

S.2.7.23. Provision for Deactivating. - On a device **or system** equipped with an automatic temperature-compensating mechanism that will indicate or record only in terms of **gallons liters** compensated to 15 °C **or gallons compensated to** (60 °F), provision shall be made for deactivating the automatic temperature-compensating mechanism so that the meter can indicate, **and record if it is equipped to or** record, in terms of the uncompensated volume.
(Amended 1972 **and 2007**). . .

Corresponding changes to NIST Handbook 130 method of sale sections are as follows:

2.30. Refined Petroleum Products – Permissive Temperature Compensation

2.30.1. Where not in conflict with other statutes or regulations, these products may be sold on the basis of temperature-compensated volume.

2.30.2. When products are sold on the basis of temperature compensated volume:

- (a) All sales shall be in terms of liters or gallons with the liters delivered volume adjusted to 15 °C or with the gallons delivered volume adjusted to 60 °F;**
- (b) Temperature compensation must be accomplished through automatic means.**

2.30.3. Full Disclosure Requirements

2.30.3.1 The primary indicating elements of measuring devices, recording elements, and all recorded or display representations (e.g., receipts, invoices, bills of lading, etc.) shall be clearly and conspicuously marked to show that the product was delivered on the basis of temperature compensated volume; . . .

Annotations:

- 1. As defined in Handbook 130 Engine Fuels, Petroleum Products, and Automotive Lubricants Inspection Law, refined petroleum products are products obtained from distilling and processing of petroleum (crude oil), unfinished oils, recycled oils, natural gas liquids, refinery blend stocks,**

and other miscellaneous hydrocarbon compounds as well as Biofuels such as E-85 and Biodiesel at various blends. . .

(2) Rationale for Change

Summarize the problem, and then state why the proposal solves the issue. Change for the sake of change is not a valid technical reason to modify requirements. New standards may require added expense for new equipment, test standards, or upgrades that can be quite costly. For these same reasons proposed changes to handbook language should not be thrown together in some haphazard manner as a quick fix or on the spur of the moment. Some changes to technical requirements may require studies because (1) there is no data that demonstrates the effects on current technology or indicates if the end result of a requirement is sound from an engineering standpoint; (2) it is necessary to ascertain if the proposed approach is cost prohibitive; (3) some aspect of a requirement, although not intentionally, may create an unfair competitive advantage or burden on one sector of the marketplace; (4) there are numerous requests or there is a demonstrated need for guidance or education on how to uniformly implement a standard; or (5) there is a need to respond in detail to a list of frequently asked questions about the best approach or a real world plan for implementing a new requirement. A written analysis should accompany any graphs, charts, spreadsheets, or large volumes of correspondence from stakeholders relating to the proposal. Anticipate the need for a study so that it is complete and ready to be included in the proposal. Additionally, proposals to change handbook requirements may require the development of or changes to examination procedures as well as training to ensure these new requirements are properly executed by field or laboratory staff. So, as a minimum, note that there will be a need for these procedures or, better yet, include an outline of test procedures and/or a training plan with the proposal. State any technical difficulties you anticipate will occur with procedures that are derived from a proposed requirement. Remember failure to address aspects such as these in a proposal can derail it.

A checklist that can be used as a guide for developing this point in the proposal is:

Proposal Criteria Checklist	
Critical Information	Information Checklist
<p>(2) Problem/Justification: Include a rationale that explains the national need for modifying the standard.</p>	<p>Attach all that apply:</p> <ul style="list-style-type: none"> ~ Cost Analysis <ul style="list-style-type: none"> ~ Commercial Equipment Affected ~ Test Standard(s) Affected ~ Training/Education (consumer, official, service, other) ~ Data (describe) ~ Implementation Plan ~ National Issue (list other locales/agencies experiencing this issue): _____ ~ Private or Public Sector Impact Statement(s) <p>If no boxes were checked, explain why this information is not relevant to this issue:</p>

You should always state the problem and how the proposal resolves the issue. Although the proposal in the example above, since recognition of temperature compensation for retail deliveries of petroleum products has resurfaced multiple times over the last four decades, it is necessary to clearly indicate the problem and how the proposal will solve the issue. Remember this could also be a new concept for this audience, which does not have your history or experience. The rationale for the proposal in our example might read as follows:

The effects of temperature on the volume of liquid products are well documented and acknowledged in the scientific community and industry. Periodically over the past forty years, the weights and measures community has discussed the use of temperature compensation to correct for the effects of temperature on the accuracy of volume measurement. Temperature compensated delivery of petroleum products is an accepted practice by all sectors or in some jurisdictions for specified quantities of liquid in wholesale meter applications. That same meter technology is used to deliver similar products in retail applications (sales to the end user). The weights and measures community has been responsive to requests for standards that apply to temperature-compensated deliveries for truck-mounted meter installations such as vehicle-tank meters used in home heating fuel deliveries. The weights and measures community is nearing completion of its work to develop requirements that recognize temperature-compensated deliveries for truck-mounted meters which in some installations would also be considered retail applications. Meters equipped with temperature compensators should be allowed to operate in all retail applications. This proposal provides specific requirements for the design, installation, test, use, and appropriate method of sale for retail meters equipped with the temperature-compensation feature. These proposed standards are necessary before guidelines and other criteria can be developed for approving and evaluating equipment placed into commercial use. These proposed requirements are for a voluntary standard that is intended for use in jurisdictions that permit new and upgraded equipment to operate in the temperature-compensated mode for delivery of liquid product to the retail customer.

(3) Stakeholders Positions

Solicit all stakeholders for their input on a proposed requirement and then be thorough, accurate, and frank in your report on their position. In all fairness to any party affected by the proposal, in the interest of due process of law, and to lend credence to the process, every effort should be made to notify affected businesses, private or public associations, and other groups about the proposed changes to requirements.

A checklist that can be used as a guide for developing this point in the proposal is:

Proposal Criteria Checklist	
Critical Information	Information Checklist
(3) Comments: Include comments from all stakeholders.	<p>What methods were used to contact affected parties? Announcement of proposed changes posted in the following (indicate date of posting and address):</p> <ul style="list-style-type: none"> ~ Federal Register (list date posted): ~ Internet Bulletin Board (list web site and date posted): ~ Other (list): _____ <hr/> <p>Party contacted (check and list all that apply):</p> <ul style="list-style-type: none"> ~ Business/Trade Association (name/contact) ~ Consumer Interest Group (name/contact) ~ Government Agency (name/contact) ~ Regional Weights and Measures Association <ul style="list-style-type: none"> ~ CWMA ~ NEWMA ~ SWMA ~ WWMA ~ Technical Committee (name/contact) ~ Other (list): _____ <hr/> <p>If no notices posted or groups contacted, explain why was this information not made available:</p>

Regardless of the issue you should objectively cite the position of all parties affected by the proposal and do not omit or diminish views that might weaken the argument for a proposal. Some examples of positions taken on the proposal for recognizing temperature compensation for retail metering devices might be reported as follows:

Since 2000 the public and private sector have been equally divided in their positions on expanding the scope of proposed changes in the handbook to recognize temperature compensation in retail stationary applications presently due to a lack of information. Prior to adopting or defeating the proposal, these groups ask that their concerns be addressed. Weights and measures program resources are already stretched to the limit to meet mandated program goals so agencies want information about the additional time and equipment necessary to verify this feature. Associations representing station owners want to know the precise cost per dispenser, availability of retrofit kits for older equipment, and whether or not temperature-compensated equipment is mandatory and, if so, on what date they must comply.

(4) Reasons for a Standard – Regular Submission

Describe the conditions that exist from a technical standpoint that have brought about the need for a change in requirements. The purpose of many legal metrology standards is to

eliminate the use of equipment or practices that result in false, incorrect, unreliable, or misleading measurements and associated transaction information, or that perpetrate outright fraud. When a new technology or business practice is developed that is not adequately addressed by existing standards, a moderate change to a current code or a complete new code section may be required. Adequate preparation of the proposal will help determine the amount of change that is necessary. More frequently, proposals are considered that include less substantive changes to requirements; however, all seven points should be considered even with minor proposed changes to handbook requirements. For example, changing "or" to "and" seems like a minor change, but can actually change how a requirement is applied. This simple exchange of words might result in all subparagraphs rather than a single subparagraph applying to a device, where it may not be possible for both old and new equipment to comply with all conditions in a requirement. In either case, provide a comprehensive summary stating the purpose and national need for a proposal's consideration. Provide discussion in your summary on how the proposed requirement(s), once adopted, should be implemented.

A checklist that can be used as a guide for developing this point in the proposal is:

Proposal Criteria Checklist	
Critical Information	Information Checklist
(4) Reasons for: Summarize reason(s) for changing the standard.	<ul style="list-style-type: none"> ~ Misinterpretation (explain) ~ New Technology/Practice (circle all that apply and describe) ~ Significant Legal Impact (check all that apply and see "Priority" Issue criteria outlined in the Handbook's "Exception to Policy for Submission of Issues to Committee Agenda"): <ul style="list-style-type: none"> ~ Conflict with International Standard ~ Court Case/Attorney General Ruling ~ Health and Safety ~ Pre-emption by Federal Statute ~ Other (describe): <hr/> <hr/>

Using the example of the proposal to recognize temperature compensation, the rationale for code changes might read as follows:

The adoption of the proposed requirements provides a uniform means for determining product volume that is consistent with practices that occur throughout all levels of the distribution cycle, except at the retail level. The use of temperature-compensated equipment also improves the accountability for commodities that are in limited supply and those that are of environmental concern.

The proposal provides permissive requirements for both a method of sale and technical device standards for States that are preparing to or already recognize temperature-compensated deliveries of products through retail devices. The proposal addresses all applicable areas of commercial operation from marking of the device and posted/printed

information (for fully disclosing the method of sale) to the installation and performance of devices equipped with this feature.

Canada initiated a similar voluntary standard more than ten years ago with relative success. Due the success of a voluntary standard in Canada and the opposition to a mandatory requirement for temperature-compensated deliveries at the retail level, the proposal allows the marketplace to drive the demand for temperature-compensated equipment in commercial use.

Several groups are calling for procedures that remove the uncertainty introduced into the measurement process by the effects of temperature on product volume especially in light of rising fuel costs. Representatives from the private sector indicate concern over deliveries that are not being adjusted to reflect the quantity that is indicated and they are paying for especially when rising motor-fuel costs are eroding their profits and the spending power of all consumers.

Temperature-compensation technology has existed for decades and with the advent of computer-based technology costs have gone down. Temperature-compensator retrofit kits are also available for mechanical devices. NOTE: At this point in the discussion the Committee would expect up-to-date information on specific equipment costs, e.g., for mechanical *versus* electronic equipment to include installation and labor costs that are projected for the average station along with the amount of sales necessary to recoup the expense.

Other Submissions:

From time to time there are two other types of issues that crop up which are managed by the Committee in a different manner:

- A developing issue is one that has possible merit and is worth mentioning to the community, but which must undergo a significant amount of work before national consideration.
- An emergency item is the other type issue, but it differs because its submission occurs after the start of the cycle. An emergency issue is introduced as a fully developed proposal and receives "priority" status if it meets specific criteria for consideration and approval as a late entry into the standards development process at the national level.

The criteria and approval process for developing and priority issues are covered separately in the Introduction Section of Handbooks 44 and 130.

(5) Reasons Against Modifying a Standard

Provide the position of stakeholders, technical information, or other findings that raise opposition or questions about the validity of the proposal or that might be the basis for supporting an alternate proposal. In order to objectively and thoroughly address any opposition to a proposal you may need to step away from being the author of a proposal. If you

consider any issue carefully enough, you will probably find there are reasons why an issue might encounter opposition. Through your research on the issue, you may find similar concerns were recorded in historical documents and they should be noted at this point in the proposal. You might start with a list of all stakeholders and then list side-by-side their reasons for and against a proposal. Circulate the proposal to groups that must enforce or comply with the proposed requirement and use the resulting feedback to anticipate and address opposing positions. Consider the impact on groups such as manufacturers who may have to meet new standards and retest equipment already approved for commercial use, enforcement officials who must train to the new requirement, or businesses that must update equipment to comply with the proposal. Even if the reason(s) against is not significant to you, it may be of paramount importance to others; in any event it must be considered along with the reasons "for" the proposal. Although it is good to be a staunch proponent of your work, this is also the time to consider any conflicting points already expressed or that might crop up in opposition to your proposal. Conflicting views should be acknowledged and, if possible, addressed in your proposal. Remember you may not be present for all discussions at regional and other technical committee levels where the proposal's outcome might be decided based on an opposing argument that could have been defused when the proposal was first developed.

A checklist that can be used as a guide for developing this point in the proposal is:

Proposal Criteria Checklist	
Critical Information	Information Checklist
(5) Reasons against: Summarize reason(s) against modifying an existing or creating a new standard.	<ul style="list-style-type: none"> ~ Conflict (specify) ~ Costs (specify) ~ Opposition (specify group and its rationale) ~ Other (explain): <hr/> <hr/> <p>If no boxes were checked, explain why this proposal will go unopposed.</p>

In our example of the proposal to recognize temperature compensation, these are some reasons that might be presented against expanding requirements to include retail applications:

Some sectors want to move cautiously to adopt a requirement that recognizes temperature-compensation capability in equipment used to meter retail motor fuel. Their primary concern is in not knowing the extent of the cost to station owners. Additionally, there is concern about how to best educate consumers about making value comparisons between stations using temperature-compensating equipment and those that do not. Most recently, the question was raised about the cost of fuel going up further to offset the price of adding the temperature-compensation feature to existing and newly purchased equipment.

(6) Background Data

Examine all historical and technical data and report on its relevance to the issue. Compile all data into a concise and easy to use format (graphs, spreadsheets, and other tools can be particularly useful in illustrating the effect of a proposal) that includes a written narrative summarizing the data and clearly explaining how it supports the proposal. This part of developing the proposal may involve more in-depth research. Adequate time should be allowed to review, analyze, and summarize data to clearly demonstrate to the reader how this information is relevant to the proposal. Today's electronic communications allows the submitter to access multiple sources of background information. A search of historical documents and current or corresponding requirements developed by other national or international standards bodies may result in findings that support the proposal and additional information on other aspects and approaches that solve the problem. For example, there may be corresponding requirements already in place that address related areas of legal metrology or that may present some conflict with the proposal. If a corresponding requirement exists internationally, it may not be necessary to reinvent a standard; today's global marketplace has fewer barriers if we can work with one uniform standard. If you discover there are no standards in place and there are multiple requests for guidelines, it becomes even more urgent to introduce the appropriate standards and efficiently move them through the process. You should acknowledge your discovery of corresponding requirements (handbook or other standards) and explain if they are the source and/or if they support or are in conflict with the proposal.

A checklist that can be used as a guide for developing this point in the proposal is:

Proposal Criteria Checklist	
Critical Information	Information Checklist
(6) Background Data: Provide research data (historical and empirical) on the proposed standard.	Searches were conducted in the following: ~ Data (statistical, etc.) ~ Handbook(s) (list related code and section): ~ Industry Standard(s) (list related code and section): ~ International Standard(s) (list related code and section): ~ Special Publication(s) (list year and section): ~ Studies (list and provide summary(s)) ~ Other (also list): _____ _____ Provide all data, analysis, etc. relevant to the proposal. Summarize why data, etc. supports the proposal.

In our example, the item was given a status that allows time for input from industry and possibly the development of a white paper that will address issues such as equipment costs. This is a good opportunity to conduct research to (1) enable a response to frequently asked questions such as whether the requirement requires test procedures for the differences in product specific gravity; (2) develop an implementation plan such as a timeline for creating an examination procedure for the officials for signage and devices, educating the public, etc.; (3) compile data to demonstrate the impact on various sectors (such as obtaining position papers from groups

unaware of this newest proposal); (4) compile and analyze data from field and laboratory trials on the effects of temperature (e.g., describe the uncertainties/errors in both the measurement and inspection processes introduced by the effects of temperature and its impact on product sold); and (5) gather other information relevant to requirements that recognize the temperature-compensation feature on stationary retail devices.

(7) Recommended Action

State the specific recommended course of action for that proposal at the national level.

The proposal should include a summary that describes why a clear majority within a group supports the proposal; the action they took; and whether or not they are willing to spearhead further work if the issue stalls or want to be consulted about changes to the proposal.

A checklist that can be used as a guide for developing this point in the proposal is:

Proposal Criteria Checklist	
Critical Information	Information Checklist
<p>(7) Recommended Action: Summarize the recommended action that should be taken on the proposed standard.</p>	<p>The (name group) recommends: ~ Recommend the proposal as a: ~ "Priority" Issue ~ Voting Item for Adoption ~ As Written Only ~ Other (specify the issue's status): ~ Request: ~ Committee's opinion/interpretation only ~ Time on the agenda (name group and session) ~ Other (specify other actions): _____ _____</p>

The summary should also be specific about the desired outcome of the proposal, for example:

The submitter (name or group represented) found that a majority of stakeholders representing a particular interest (name the group and cite what constitutes a consensus within that group, for example, an electronic ballot of 25 in favor, 3 against, and 1 abstention,) agreed that this is an issue of national importance (briefly recap why the issue has reached a level of national importance) that can be addressed by the proposed requirement and the submitter requests adoption of the proposal as written at next year's national committee meeting (state when action should be taken to adopt the proposal) so that it becomes effective on a particular date (state the day, month, and year).

Developing a proposal can be a complex process. One way to help organize the entire process is to organize your ideas and research on a single checklist. The checklist below outlines all seven critical components to include in a proposal as follows:

Proposal Criteria Checklist	
Critical Information	Information Checklist
<p>(1) Proposal: Include the proposed new or modified handbook language.</p>	<p>Proposal includes language for:</p> <ul style="list-style-type: none"> ~ Date(s) of Enforcement ~ Definitions ~ Method of Sale Requirements ~ Multiple Device Codes (list): _____ ~ References to other standards (specify code(s)) ~ Specifications ~ Test Notes ~ Tolerances ~ User Requirement ~ Other (list): _____ <hr/> <p>Be sure to include all applications that apply.</p>
<p>(2) Problem/Justification: Include a rationale that explains the national need for modifying the standard.</p>	<p>Attach all that apply:</p> <ul style="list-style-type: none"> ~ Cost Analysis <ul style="list-style-type: none"> ~ Commercial Equipment Affected ~ Test Standard(s) Affected ~ Training/Education (consumer, official, service, other) ~ Data (describe) ~ Implementation Plan ~ National Issue (list other locales/agencies experiencing this issue): _____ ~ Private or Public Sector Impact Statement(s) <p>If no boxes were checked, explain why this information is not relevant to this issue:</p>

Proposal Criteria Checklist	
Critical Information	Information Checklist
<p>(3) Comments: Include comments from all stakeholders.</p>	<p>What methods were used to contact affected parties? Announcement of proposed changes posted in the following (indicate date of posting and address):</p> <ul style="list-style-type: none"> ~ Federal Register (list date posted): ~ Internet Bulletin Board (list web site and date posted): ~ Other (list): _____ <hr/> <p>Party contacted (check and list all that apply):</p> <ul style="list-style-type: none"> ~ Business/Trade Association (name/contact) ~ Consumer Interest Group (name/contact) ~ Government Agency (name/contact) ~ Regional Weights and Measures Association <ul style="list-style-type: none"> ~ CWMA ~ NEWMA ~ SWMA ~ WWMA ~ Technical Committee (name/contact) ~ Other (list): _____ <hr/> <p>If no notices posted or groups contacted, explain why was this information not made available:</p>
<p>(4) Reasons for: Summarize reason(s) for changing the standard.</p>	<ul style="list-style-type: none"> ~ Misinterpretation (explain) ~ New Technology/Practice (circle all that apply and describe) ~ Significant Legal Impact (check all that apply and see "Priority" Issue criteria outlined in the Handbook's "Exception to Policy for Submission of Issues to Committee Agenda"): <ul style="list-style-type: none"> ~ Conflict with International Standard ~ Court Case/Attorney General Ruling ~ Health and Safety ~ Pre-emption by Federal Statute ~ Other (describe): <hr/> <hr/>

Proposal Criteria Checklist	
Critical Information	Information Checklist
<p>(5) Reasons against: Summarize reason(s) against modifying an existing or creating a new standard.</p>	<ul style="list-style-type: none"> ~ Conflict (specify) ~ Costs (specify) ~ Opposition (specify group and its rationale) ~ Other (explain): <hr/> <hr/> <p>If no boxes were checked, explain why this proposal will go unopposed.</p>
<p>(6) Background Data: Provide research data (historical and empirical) on the proposed standard.</p>	<p>Searches were conducted in the following:</p> <ul style="list-style-type: none"> ~ Data (statistical, etc.) ~ Handbook(s) (list related code and section): ~ Industry Standard(s) (list related code and section): ~ International Standard(s) (list related code and section): ~ Special Publication(s) (list year and section): ~ Studies (list and provide summary(s)) ~ Other (also list): _____ <hr/> <p>Provide all data, analysis, etc. relevant to the proposal. Summarize why data, etc. supports the proposal.</p>
<p>(7) Recommended Action: Summarize the recommended action that should be taken on the proposed standard.</p>	<p>The (name group) recommends:</p> <ul style="list-style-type: none"> ~ Recommend the proposal as a: <ul style="list-style-type: none"> ~ "Priority" Issue ~ Voting Item for Adoption <ul style="list-style-type: none"> ~ As Written Only ~ Other (specify the issue's status): ~ Request: <ul style="list-style-type: none"> ~ Committee's opinion/interpretation only ~ Time on the agenda (name group and session) ~ Other (specify other actions): _____ <hr/>

Now that you have a fully developed a proposal and have the endorsement of your organization or company you are ready to begin the standards development process. The proposal may be submitted to a regional weights and measures association, National Type Evaluation Technical Committee, Task Force, or U.S. National Work Group for review and support. While it is only necessary to submit a proposal to one of these groups to initiate the process, authors of proposals are encouraged to circulate a proposal among corresponding associations and/or committees to allow widespread exposure and review of this information by all stakeholders. The greater number of audiences that review the proposal, the more input that will be provided. This additional input can help you refine your proposal and can significantly increase the chance of it successfully moving through the entire process. The better developed your proposal, the more likely it will be adopted. Make certain to contact the appropriate representative from each group to determine the deadline and where to send proposals.

If you have questions about this information, please contact Juana Williams at juana.williams@nist.gov or 301-975-3989.