

The Birth of a Standard – Part II: The Harmonization Effort

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The objective of any standards development organization is to promote uniformity in their field. In regards to construction materials testing, the goal of organizations like AASHTO and ASTM is to promote uniformity and improvement of testing procedures. Even with uniformity in mind, differences in the wording presented in the standards continue to persist. This is mainly due to the fact that many of these standards development bodies have different participants with different perspectives (as I mentioned in [Part I of this series](#)). However, there is an effort underway intended to unify the language used in these standards called “harmonization.”

The harmonization effort is focused primarily on making the specifications and essential tests the same whether someone is using the ASTM or the AASHTO standards. ASTM is often viewed as representing the private industry’s perspective while AASHTO represents the state government’s perspective. Since the state governments are large purchasers of road and paving materials, harmonization allows both the buyer and the seller to get what they want out of the transaction.

There are many individuals and groups who are working on the harmonization effort:

ASTM and AASHTO Members

The members of ASTM and AASHTO work hard at eliminating any confusion that exists in the industry by submitting balloted language that improves the standards managed by the respective standards development organization. These members bring their own local knowledge and experience to the international and national testing communities with their efforts. Many of them deal first-hand with the problems a lack of harmonization creates, and strive to promote more universal language that works for all users of the standards.

FHWA Expert Task Groups

The Federal Highway Administration (FHWA) has established some material-specific Expert Task Groups (ETGs), which include members from FHWA, academia, private industry, and some state DOTs. The ETG often develops recommendations that are passed along to standards developers.

“Friends of the SOM”

AASHTO technical sections have invited interested parties to participate in the Subcommittee on Materials (SOM) balloting process by signing up as a “Friend of the SOM” so that they can review balloted changes and make comments. The “Friends of the SOM” membership category has opened the door to better representation of industry and academia concerns within the AASHTO SOM, which will improve the harmonization effort. Industry experts who are interested in becoming a “Friend” can contact the chair of the technical section that they are interested in joining for more information. Contact information for the Chairs can be found on the [SOM website](#).

Public

AASHTO re:source and our customers are also helping to harmonize the standards. When we find divergent language that causes confusion for our customers, we make an effort to suggest changes to the standards both through ASTM and AASHTO so that they can be improved. Anyone (whether they are a customer or not) can also suggest changes to AASHTO standards at any time [through our website](#).

To better explain the harmonization effort and its history, I asked the harmonization champion and Chair of AASHTO SOM Technical Section 3a (Hydraulic Cement and Lime), Mark Felag, a few questions. Mark is the Managing Engineer (Materials and Quality Assurance) for the Rhode Island Department of Transportation. He has over 28 years of standards development experience with the AASHTO SOM. In addition to his serious work with harmonization and management of the standards, Mark likes to have a little fun by writing poems and reading them at the SOM meetings. He recently published a compilation of his poetry, which he shared with the attendees of the last SOM meeting for the SOM’s 100th anniversary this year.

Q&A with Mark Felag, Chair of AASHTO SOM Technical Section 3a

Q: What is your role in the standardization and harmonization effort?

A: As chair of the Technical Section on Cements, I established the AASHTO-ASTM Harmonization Task Force and now coordinate the work of the Task Group through the ballot process within AASHTO.

Q: Why is harmonization of the AASHTO and ASTM standards important?

A: It is important to harmonize standards between the two groups as much as possible so that suppliers do not have to produce two types of materials for basically the same purpose. In cements, ready mix suppliers used to have an extra silo - one for private work using ASTM cement, and one for state work using AASHTO cement.

Q: How did it all get started?

A: The discussion of consistent cement standards goes as far back as the 80's as far as I recall. It revolved around both groups wanting to keep the requirements in their standards and neither wanting to adopt the other's standards. In the mid 90's there was an issue that would have further divided the standards. In 1999, we made that change, which had proponents and opponents within the cement industry. In 2000, I initiated a cement research project to study this particular change. A few years later we were approached by ASTM to work on consistent standards. I stated that it would only work if we mutually agreed that we would look at both of our standards for changes, not just have AASHTO change to meet ASTM's standards. In 2003, I established the AASHTO-ASTM Harmonization Task Force on Cements.

Q: What is your AASHTO Technical Section on cements doing to ensure that the standards are harmonized?

A: We have worked on the Harmonization Task Force since inception in 2003. In 2009, Harmonization of the AASHTO and ASTM Standards was achieved! This was a great milestone for all of us! In standards development, changes to a long standing specification is not easy, and to make 5 major changes to one was almost unheard of. In 2009, I disbanded the original Task Force and immediately set up another one of the same group with another charge – to continue to work on issues related to cements for Harmonization.

Q: We often hear that more effort could be made harmonizing materials specifications among the states. My understanding is that we have AASHTO standards as a way to achieve the interstate harmonization goal. Why do so many states use their own standards in favor of AASHTO standards?

A: Some states have found that they have developed a new or revised standard and use it in their state, or others specify ASTM over AASHTO. We are a collective group of states with our own standard specifications, AASHTO. Those states should present those changes to AASHTO. We are an open organization and would welcome any comments to make our standards better. Some states may want to keep using their own specifications due to climatic or other reasons.

Q: What can we do moving forward to bring standardization to ASTM, AASHTO, and the states in other areas?

A: I believe open communication is best for this. If both of our organizations, AASHTO and ASTM, have the best standards it helps us both out. "A rising tide lifts all boats." We need to reach out to our ASTM partners to work on standards of mutual interest at the Technical Section level, not only in cements but in other areas as well. I have promoted this during our AASHTO meetings. This was more of a common practice between the two organizations back until the early 90's.

States should bring up reasons why they use other standards such as ASTM or state approved ones at the AASHTO Technical Section level. There should then be further discussion on this to not only make our AASHTO standards better, but to have more consistency among them.

Q: Is there a poem you would like to include to let people know about the standards development process or the harmonization effort?

A: As you are aware I usually write some (tongue-in-cheek) poems for the meetings and I did include this effort in a few lines over the years as shown below:

Harmonizing is being asked by ASTM.
We will work and try to trust them. (2002)

If they change their specs for additions and C3S.
We will know they are serious and will say 'Yes!' (2002)

ASTM and Harmonization; going forth across the nation. (2003)

Cement Harmonization, we are now there.
Many thanks to Don Streeter and John Melander! (2009)

We continue to work on the standards at hand.
To make them the very best qual'ty in the land! (2014)

Thanks for the opportunity to discuss this.

**In 2017, the Joint Committee on Pavements merged with the Subcommittee on Materials to form the Committee on Materials and Pavements (COMP). This committee is tasked with managing standard specifications, practices, and test methods related to all construction materials used by the Departments of Transportations including those used in pavements.