

## Technician Certification Requirements in ASTM Standards

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It has been over a year since AASHTO re:source started to request technician certification information during a laboratory's annual review for AASHTO accreditation rather than during the on-site assessment if the laboratory is accredited for *ASTM C1077*, *D3666*, *D3740*, or *E329*. This change was made to improve the consistency of our assessment of laboratory conformance to the ASTM quality system standards that require technician certifications. A consistent evaluation ensures that all AASHTO-accredited laboratories throughout the country are treated fairly and that our program can better meet the needs of the agencies that specify accreditation for these standards.

For most of the laboratories in our program, this change has not been too troublesome. For some, though, it has been a challenge - mainly because the laboratories are not familiar with the requirements of the standards and how we evaluate conformance to them. Also, the certification requirements can be a little confusing for the laboratories because they often perform testing on more than just one type of material, and they work on projects for more than one specifying agency. This causes them to sort through a maze of possible certification programs to find the ones that will satisfy all of the different requirements.

We are not able to simplify the requirements, but we can help the laboratories to better understand them. This article explains some of the considerations that should be made by the laboratories and by specifiers when working with the ASTM quality system standards.

### Considerations for laboratories

Laboratory personnel should ask themselves a few questions before submitting documentation for review:

1. *Have the requirements of the standards changed since the last time the laboratory was approved for the accreditation?* These standards change often, and the laboratories must react to the changes if they wish to maintain accreditation for those standards.
2. *Do the technicians hold certifications that include all the required test methods specified in the standards?* Sometimes problems arise because either the certification program was not designed around the ASTM specification(s) or the laboratory technician did not select all of the test method options that are required. It is best to investigate external certification programs to ensure that they fulfill the requirements of the standards.
3. *Who needs to be certified?* Most of the standards establish several operational positions that are to be staffed by individuals who are required to hold certain certifications. The laboratory should carefully consider the positions identified in the standards, and who fulfills those roles on a day-to-day basis before submitting the Criteria Compliance Document, organizational chart, and certifications for review. AASHTO re:source staff will evaluate the certifications based on evidence of the laboratory's organizational structure.



While it is true that some of the standards permit one person to fulfill multiple positional requirements, the AASHTO Accreditation Program (AAP) only approves this situation when the person is actually acting in the operational capacities specified in the standards. In other words, the registered Professional Engineer (P.E.) should not be listed as the certified technician, laboratory manager, and supervisor unless that person actually performs the duties associated with all of those positions. This situation may be acceptable at some smaller organizations in which the people employed at the facility fill multiple roles; however, it is more common for the P.E. at a facility to act only as a technical director, and therefore cannot be used to fulfill the certification requirements of other positions within the laboratory.



### What if a laboratory does not conform to the requirements?

Sometimes we have found that laboratories accredited for one of the ASTM standards that require certifications do not actually conform to the requirements. In these cases, we attempt to determine what actions the laboratory is taking to resolve the issue. For laboratories that are actively working to resolve the issue as fast as possible, we can offer a continuation of accreditation until the issues have been resolved.

If a laboratory simply does not conform and no clear and timely plan to resolve the situation has been submitted by the laboratory, those quality system standards are removed from the laboratory's accreditation listing. The laboratory is able to get those standards back on their directory listing after they submit evidence of conformance.

### Why go through the trouble?

It is very important to our program that we meet the needs of the agencies that require our accreditation. If we are not doing our best to ensure that accredited laboratories actually conform to the requirements of the standards, our accreditation loses value to those who rely on it.

For example, the Federal Aviation Administration (FAA) requires hot mix asphalt laboratory accreditation for *ASTM D3666* as well as all tests required for developing the job mix formula. The FAA selected *ASTM D3666* because it describes a quality management system that can be applied specifically to the type of testing relevant to those sections of the *Advisory Circular*, and it requires the laboratory to have its technicians certified. As an accrediting body, it is important that we support the mission of the specifying agency by ensuring that these certifications are valid before we can provide accreditation for *ASTM D3666*. This assures the FAA that when an AASHTO-accredited laboratory is hired to work on an airport project, they are getting exactly what they need.

### Considerations for specifying agencies

It seems like the number of agencies that specify the ASTM quality system standards is on the rise, and the AASHTO Accreditation Program will continue to do its best to support their quality objectives. AASHTO re:source suggests that the agencies pay close attention to the content of these standards and consider whether or not they continue to meet their needs. For example, some of the ASTM quality system standards do not require periodic examinations, allowing a lifetime certification even though the test methods have changed over time. There may be little practical value in that kind of requirement, and requiring a standard that specifies a periodic performance evaluation may be more effective at ensuring technical proficiency.

It might behoove some agencies to specify *AASHTO R 18* as an alternative to the ASTM quality system standards that are material-specific. It includes all the road paving materials commonly encountered in the ASTM quality system standards, and it requires laboratories to ensure that the performance of their technicians is evaluated regularly instead of allowing a lifetime certification.

Regardless of which quality system an agency chooses to require, the best way for them to truly get what they want out of these standards is to get involved with the standards development process. Although AASHTO membership is not available to individuals or private-sector entities, anyone can contribute to the development of AASHTO standards by submitting revision ideas to the AASHTO Highway Subcommittee on Materials through AASHTO re:source. To submit a comment on an AASHTO standard, [click here](#). We submit revisions to the AASHTO Subcommittee on Materials for review regularly, and we are focused on meeting the needs of the industry. In addition, a person from any agency can join an ASTM committee or subcommittee, vote on ballot items, and even propose balloted changes within ASTM. [Contact ASTM](#) to get involved in the [standards development process](#).