

Selecting Competent Subcontractors and Vendors: What to Consider and How to Document It

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You should be proud that your laboratory has been through an on-site assessment and has completed the requirements of the AASHTO Accreditation Program. Once accreditation is granted, your laboratory's accreditation status is available on-line from the [Directory of AASHTO Accredited Labs](#). Your customers can view this accreditation listing and will likely use it as a method of determining whether or not you are competent to perform a given task. So, it makes sense that your laboratory also has a policy for ensuring the competency of the subcontractors and vendors that you use.



Subcontractor vs. Vendor - What's the Difference?

A *subcontractor* is a company your agency hires to do the same type of work that you normally do, i.e. testing (for the purposes of this article). Let's face it, things happen. Say a major piece of equipment used to perform a certain test is out of service, or the only staff member who is trained to perform that test is unexpectedly absent. In order to meet your customers' needs, you may decide to temporarily subcontract this portion of your work to another laboratory until yours is able to perform the testing again. When these situations arise, it is important to select a reputable and competent subcontractor to perform this testing on your behalf.

A *vendor* is an outside supplier of goods or services. Calibration agencies and equipment suppliers are two commonly used vendors.

Whether choosing a subcontractor or vendor, it is important to verify the quality and competence of the companies you choose to work with, particularly when it has a direct impact on the results of your laboratory's testing.

What is Required?

The level of detail and record-keeping required for the selection of subcontractors and vendors varies based on the quality management system standard(s) that your laboratory may be required to follow. However, the overall intent is the same: have a written procedure on how you determine subcontractor and vendor competency, and then document the results of your findings. The table at the end of the article shows the requirements of each quality management system standard in AASHTO's scope of accreditation.

Selection Criteria

How do you determine if your subcontractors are competent to perform the necessary testing activities? Here are some methods that can be used:

- Require the laboratory to be accredited by AASHTO for the specific test(s) in question.
- Review the laboratory's proficiency sample or other round-robin testing results.
- Track the performance and accreditation status of the laboratory by signing up for a [specifier role](#) on the AASHTO re:source website.
- Review the certification and qualification records of the laboratory's technical personnel.
- Perform your own audit of the agency's quality manual and related activities to ensure conformance with requirements.
- Review calibration and standardization records for critical pieces of testing equipment.
- Consider the past experience working with the subcontractor.

Likewise, here are some examples of what can be used to determine vendor competency:

- Require the agency to be accredited for *ISO/IEC 17025*, *ISO 9001*, etc. or hold recognition from an external evaluator.
- Review consumer feedback or references from other customers of the agency.

- For calibration agencies, ensure that their equipment is traceable and that an estimate of measurement uncertainty is determined.

At the end of the day, when an agency performs testing or calibration services for you, or supplies you with other critical equipment or services, it is YOUR responsibility to ensure the agency is competently providing those services.

Back it All Up with Records

There are many ways in which to document subcontractor and vendor evaluations. You can use a memo-style document that is distributed to key staff, a standard evaluation form, or an Excel spreadsheet. Regardless of how you decide to document the evaluations, be sure that it matches your policy and procedure. At a minimum, you should record the date of the evaluation, the details of what was reviewed, and the results of the evaluation.

Once you have completed the evaluations, create a list of the agencies that are normally used and make it available to any staff that may need to reference the information. Maintaining such a list is actually required by some quality management system standards, including *ASTM C1077* and *ISO/IEC 17025*.

Reporting Results from Subcontractors

In addition to ensuring the competency of your subcontractors, it is important to be transparent with your customers or clients. You should also have a policy on how you clearly identify any test results that were obtained by use of a subcontractor on test reports. This type of policy is required by various quality management system standards, including *AASHTO R 18*, *ISO/IEC 17025*, and *ASTM D3666*.

Subcontractors and Your AASHTO Accreditation

Keep in mind that your laboratory cannot be accredited for any test that it is not capable of performing in-house. This means that AASHTO will not accredit your laboratory for testing that is always performed by subcontractors. For additional information, see Section 2 (second paragraph) of the [AAP Procedures Manual](#).

Subcontractor and vendor evaluations give your laboratory assurance that the quality of external services used is on par with the high quality you have worked so hard to achieve in your own laboratory. This level of confidence will allow you to rest easy and focus on your first priority: providing the best possible testing results to your customers.

References

- AASHTO, "AASHTO R 18, Standard Practice for Establishing and Implementing a Quality Management System for Construction Materials Testing Laboratories," *Standard Specifications for Transportation Materials and Methods of Sampling and Testing*, Part 1B: Specifications, 2013.
- ASTM International, "ASTM C1077, Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation," *Book of Standards*, Volume 04.02, 2013(b).
- ASTM International, "ASTM C1093, Standard Practice for Accreditation of Testing Agencies for Masonry," *Book of Standards*, Volume 04.05, 2013.
- ASTM International, "ASTM D3666, Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials," *Book of Standards*, Volume 04.03, 2011.
- ASTM International, "ASTM D3740, Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction," *Book of Standards*, Volume 04.08, 2012(a).
- ASTM International, "ASTM C1222, Standard Practice for Evaluation of Laboratories Testing Hydraulic Cement," *Book of Standards*, Volume 04.01, 2013.
- ASTM International, "ASTM E329, Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection," *Book of Standards*, Volume 04.02, 2013(a).
- ISO, "ISO/IEC 17025, General requirements for the competence of testing and calibration laboratories," Second edition, 2005-05-15.

Quality Management System Standard	Section or Clause Number(s)	Subcontractor Requirements	Vendor/Supplier Requirements
AASHTO R 18-10	6.4	“ <i>Subcontracting</i> – The laboratory shall maintain a document describing the policies that the laboratory follows relative to subcontracting, if it engages in such activities. These policies shall include procedures followed by the laboratory in selecting competent subcontractors and reporting the results of testing performed by subcontractors.”	<i>Not addressed.</i>
ISO/IEC 17025:2005	4.5, 4.6	<p>“4.5.1 When a laboratory subcontracts work...this work shall be placed under with a competent subcontractor...”</p> <p>“4.5.4 The laboratory shall maintain a register of all subcontractors that is uses for tests and/or calibration and a record of the evidence of compliance with this International Standard for the work in question.”</p>	<p>“4.6.1 The laboratory shall have a policy and procedure(s) for the selection and purchasing of services and supplies it uses that affect the quality of the tests and/or calibration...”</p> <p>“4.6.4 The laboratory shall evaluated suppliers of critical consumables, supplies and services which affect the quality of testing and calibration, and shall maintain records of these evaluations and list those approved.”</p>
ASTM C1077-13b	10.1.5	“The testing agency shall establish procedures for ensuring the quality of external technical services, such as: ...subcontractors (that is, an agency contracted to perform a standard test method or part of a test method). The agency should be able to demonstrate that the subcontractor is competent and is in compliance with the requirements of the test methods. The agency should maintain records of the subcontractor and vendor evaluations. The selection and evaluation criteria for the subcontractor should include a review of external audits, inspections, certifications, and accreditations held by the agency.”	“The testing agency shall establish procedures for ensuring the quality of external technical services, such as: calibration services used by the agency, equipment and materials procured by the agency from vendors... The agency should maintain records of the subcontractor and vendor evaluations...”
ASTM C1093-13, D3666-11, D3740-12a	C1093: 9.8 D3666: 9.1.8 D3740: 9.1.8	“The QSM shall contain a document describing the policies that the agency follows relative to subcontracting, if it engages in such activities. A reference to where the policies may be found is acceptable if they are not included in the QSM. These policies shall include procedure followed by the agency in selecting competent subcontractors who meet the requirements of this practice and reporting the results of testing performed by subcontractors. If the agency does not engage in such activities, the QSM shall contain a statement to that effect.”	<i>Not addressed.</i>
ASTM C1222-13	8	<p>“8.2 <i>Permanent Subcontracting</i>—When all or a portion of a test method is subcontracted on a permanent basis then the subcontracted organization must be subjected to separate evaluation according to this practice for the methods subcontracted. The laboratory shall retain a copy of this evaluation for review by the evaluation authority.</p> <p>8.3 <i>Temporary Subcontracting</i>—When all or a portion of a test method is subcontracted on a temporary basis then the laboratory shall ensure the quality of the subcontracted work. The level and type of assurance will depend on the extent of the subcontracting (see Note 3). The laboratory shall retain records of this assurance for review by the evaluation authority.”</p>	<i>Not addressed.</i>
ASTM E329-13a	15.2	“The agency shall be equipped to meet the needs of the procedures required to fulfill the contract with the project sponsor. If the agency subcontracts services to other agencies, these agencies shall be properly equipped.”	<i>Not addressed.</i>