
Standard Practice for Independent Assurance (IA) Programs

AASHTO Designation: R 44-07 (2022)¹

Technically Revised: 2007

Reviewed but Not Updated: 2022

Tech Subcommittee: 5c, Quality Assurance and Environmental



**American Association of State Highway and Transportation Officials
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1. SCOPE AND LIMITATIONS

- 1.1. *Independent Assurance (IA)*—Independent assurance is used in industry as an internal audit and review to support the accuracy of data and processes. In the highway industry, it is the outgrowth of a report from the Congressional House Committee on Oversight and Investigations (“Blatnik Committee”) that requires state departments of transportation (DOTs) to perform IA sampling and testing whenever federal funds are involved.
- 1.2. *Purpose of IA*—Independent assurance is an unbiased and independent assessment of all sampling, testing, and workmanship. This assessment includes evaluation of procedures and equipment used for the acceptance of highway materials and construction. 23 CFR Part 637 requires each state to have an IA Program. Independent assurance is used for verification of sampling procedures, testing procedures, and testing equipment.
- 1.3. Independent assurance is distinct from, and not intended as an acceptance process or for use in, verification of contractor sampling and testing results. Independent assurance is distinct from, and not intended for, quality control (QC) purposes. If IA results indicate a potential problem with quality, the results may be used to initiate additional testing.
- 1.4. Independent assurance sampling shall be done in such a manner as to minimize variability. In order to eliminate material and process variability, split samples should be used. Independent assurance samples may be taken independently of verification or acceptance samples, or may be a split of a verification or an acceptance sample.
- 1.5. Deficiencies in acceptance or QC processes that are identified through the IA program must be investigated and resolved. Otherwise, there is no purpose in identifying deficiencies.
- 1.6. This standard practice is applicable to design/build and warranty specifications as well as more conventional contracting methods. As a management principle, IA is a responsibility of the DOT that cannot be delegated to the contractor. (For example, contractors shall not hire their own IA inspectors or testers.)
- 1.7. Independent assurance is an essential tool that helps to ensure integrity within the quality assurance (QA) program. Independent assurance helps to prevent fraud and other criminal activities by evaluating sampling and testing procedures and competency. Independent assurance must be consistent throughout the agency. (It keeps the honest people honest by providing a “level playing field” for all contractors.)

Note 1—Many of the principles included herein have universal application. Although this standard practice for IA programs is developed specifically for construction materials, it can be applied to other processes. The principles inherent in the use of unbiased, consistent, and reliable

information are applicable for any management effort. For example, construction workmanship is frequently inspected by either measurement or examination.

2. REFERENCED DOCUMENTS

2.1. *AASHTO Standards:*

- < R 10, Definition of Terms Related to Quality and Statistics as Used in Highway Construction
- < R 18, Establishing and Implementing a Quality Management System for Construction Materials Testing Laboratories
- < R 25, Technician Training and Certification Programs

2.2. *Other Documents:*

- < FHWA NHI-02-022, *Materials Control and Acceptance—Quality Assurance*, NHI Course No. 134042, Federal Highway Administration, December 2000
- < FHWA-RD-02-095, *Optimal Procedures for Quality Assurance Specifications*, Federal Highway Administration, 2003
- < FHWA Technical Advisory T 6120.3, *Use of Contractor Test Results in the Acceptance Decision, Recommended Quality Measures, and the Identification of Contractor/Department Risks*, HIPT-10, August 2004
- < Final Rule, 23 CFR 637, Quality Assurance Procedures for Construction, *Federal Register*: June 29, 1995 (Vol. 60, Number 125, 33712)
- < Title 23 Code of Federal Regulations, Part 637, Subpart B, *Quality Assurance Procedures for Construction* [Revised as of April 1, 2003, CITE: 23 CFR 637]
- < Transportation Research Circular E-C074, *Glossary of Highway Quality Assurance Terms*, Transportation Research Board, 2005

2.3. *Websites:*

- < <http://www.fhwa.dot.gov/pavement/0637bsup.cfm>
- < <http://www.fhwa.dot.gov/pavement/materials/matqa.cfm#labqual>

3. TERMINOLOGY (REFERENCE R 10)

- 3.1. *acceptance sampling and testing*—sampling and testing performed by the agency, or its designated agent, to evaluate acceptability of the final product. Also called “verification sampling and testing” when specifically used to validate the contractor’s data.
- 3.2. *accredited laboratories*—laboratories that are recognized by a formal accrediting body as meeting quality system requirements, including demonstrated competence to perform standard test procedures.
- 3.3. *certified technician*—a technician certified by some agency as proficient in performing certain duties. [A certified technician is considered to be qualified. A qualified technician may or may not be certified.]
- 3.4. *independent assurance (IA)*—activities that are an unbiased and independent evaluation of all the sampling and testing (or inspection) procedures used in the QA program. [Independent assurance provides an independent verification of the reliability of the acceptance (or verification) data obtained by the agency and the data obtained by the contractor. The results of IA testing or inspection are not to be used as a basis of acceptance. Independent assurance provides information for quality system management.]