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INTRODUCTION

The [Code of Federal Regulations, \(CFR\) Part 637 of Title 23](#), specifies all state highway agencies, which includes the Idaho Transportation Department, must develop a quality assurance program. The program will assure that materials and workmanship incorporated into each federal-aid highway construction project on the NHS are in conformity with the requirements of the approved plans and specifications, including approved changes. The program must be approved by the Federal Highway Administration and must contain certain elements identified in the federal regulation.

The ITD Quality Assurance (QA) Program, as approved by FHWA, applies to all projects, whether federal-aid or state funded. The ITD QA program contains the three required elements: the Acceptance Program (Section 200.00), the Independent Assurance Program (Section 300.00), and the Project Materials Certification (Section 400.00).

The ITD Quality Assurance Program defines three levels of evaluation:

100.00.01 Quality Control (QC) (Producer). Quality Control includes all Contractor/Vendor operational techniques and activities that are performed or conducted to fulfill the contract requirements. Quality control of construction materials is the responsibility of the Contractor and is performed during the production of the material and/or at the point of delivery. The test results provide information to substantiate the uniformity of the material as it is produced and the conformity of the product to specification requirements. A useful tool in quality control is the control chart or run chart. It charts each test result on a graph that shows the average, the variation about the average, and any change in the process during production.

100.00.02 Acceptance Program (Buyer). The acceptance program encompasses all factors that comprise the Department's determination of the quality of the product as specified in the contract requirements. In addition to inspection, these factors include:

- Manufacturer's Certification
- Acceptance sampling and testing is sampling and testing used in the acceptance decision. Acceptance sampling and testing may include verification and quality control sampling and testing.
- Verification sampling and testing is sampling and testing performed by the Department or their designated agent, hired by the Department, to validate the quality of the product. All verification samples will be taken independently of QC samples.
- QC sampling and testing results may be used for acceptance as specified if they are validated by the independent verification sampling and testing.

The results of the acceptance program are used by the Department to accept the material at full price, reject the material, or accept the material at a reduced price.

100.00.03 Independent Assurance (IA). Independent Assurance is an unbiased and independent evaluation of all the sampling and testing procedures, personnel, and equipment used in the acceptance program. It is a procedure, personnel, and equipment check and is not a part of the acceptance decision.

100.01 Conflict of Interest. In order to avoid a conflict of interest, any non-Department laboratory is allowed to perform only one of the following types of testing on the same project:

- Verification and/or Acceptance testing performed by the Department
- Quality Control
- Independent Assurance
- Dispute Resolution

All levels of testing by Contractors or their designated laboratories to control the quality of a product are considered QC testing. When properly validated by Verification testing, quality control test results may be used for acceptance of material when specified in the contract.

A laboratory performing one of the above types of testing is allowed to prepare mix designs for the same project. The lab must also meet the requirements of Section 225.00 of the Laboratory Operations Manual.

110.00 Quality Assurance Specification Team. In 1996, an ongoing Quality Team was formed to implement and oversee Quality Assurance measures in accordance with the CFR and to ensure the quality of materials and construction on Idaho's roadways by partnering with Contractors.

In Spring of 2003, the team was reestablished and renamed the Quality Assurance Specification Team. The Division of Engineering Services Administrator serves as the team's executive sponsor to accomplish the following charge:

To provide continued development and improvement of the Department's Quality Assurance specifications, measures, and programs to assure quality materials are incorporated into Department projects.

Team members consist of HQ and District representatives from Construction, Materials, Central Laboratory, and Training. An FHWA member, together with representatives from the Consultant and Contracting communities, are also chosen based on knowledge and experience. Contracting members will be recommended by the Association of General Contractors (AGC) and consulting members will be recommended by the Association of Consulting Engineers (ACEC), each to serve for 4 years. Materials Engineers and Resident Engineers will be rotated every 4 years. Reappointments will be allowed based upon expertise and interest.

The Quality Assurance Specification Team will have authority for establishing, maintaining, and promoting Quality Assurance Specifications and programs for the Department.