

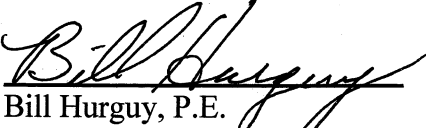
CHANGE LETTER

MATERIALS TESTING MANUAL	CHANGE LETTER NO. 32
SUBJECT: Title Page; Table of Contents; Series 1000 “Certificates”.	EFFECTIVE DATE: July 7, 2014

SUMMARY:

NOTE: Unless otherwise specified, changes issued under this Change Letter are effective for projects with a bid opening date on or after July 7, 2014. Retain items removed from the Materials Testing Manual under this change letter for use as necessary on projects with a bid opening date prior to July 7, 2014.

1. TITLE PAGE - The Title Page has been revised to show the latest Change Letter number and revision date. Please replace the existing Title Page with the attached.
2. TABLE OF CONTENTS - The Table of Contents has been revised to reflect the changes made in this Change Letter. Please replace the existing Table of Contents with the attached.
3. Series 1000, “Certificates”, has been revised. Please replace the entire existing Series 1000 with the attached.


Bill Hurguy, P.E.
Assistant State Engineer
Materials Group

Attachments

MATERIALS
TESTING MANUAL
SAMPLING AND TESTING PROCEDURES



PREPARED BY:
ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
MATERIALS GROUP

REVISED TO CHANGE LETTER NO. 32
(July 7, 2014)

MATERIALS TESTING MANUAL

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(January 17, 2014)

- Appendix A - Arizona Department of Transportation Local
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- Appendix B - Final Certification of Materials for Consultant
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SERIES 1000 CERTIFICATES

1. SCOPE

1.1 Subsection 106.05, "Certificates", of the specifications (see Note below) stipulates that when required by the Standard Specifications or the Special Provisions, either a Certificate of Compliance or a Certificate of Analysis shall be furnished for certain materials or manufactured assemblies prior to their use. The Engineer may permit the use of these materials prior to, or without, sampling and testing if the appropriate certificate is provided. This permission is granted for these certain materials or manufactured assemblies because the Department either relies on the manufacturer's test results, accepts the material based on a manufacturing process that cannot be tested, suffers little risk by using the material prior to testing, or is unable to perform the tests. The Engineer reserves the right to revoke this permission for any cause, such as, the materials appear damaged, the materials continually fail Department testing, or any similar reason. Project personnel are expected to exercise good engineering judgement in evaluating the condition of material prior to its use. Subsection 106.05 of the specifications states that materials or manufactured assemblies, for which a certificate is furnished, may be sampled and tested at any time. If the material is not in conformance with the requirements of the plans and specifications, it will be subject to rejection whether in place or not. Certificates shall comply with the requirements specified herein, and of the Standard Specifications and applicable project Special Provisions.

Note: ADOT Contracts and Specifications Section has issued Stored Specification 106CERT, which is shown in Figure 4. This Stored Specification entirely revises Subsection 106.05 of the Standard Specifications.

1.2 Certificates may be prepared by either the manufacturer or the supplier of the material being certified. When material is certified by a supplier, the supplier shall upon request provide documentation from the manufacturer indicating that the material meets the requirements of the specifications. For purposes of certifying materials, a supplier is defined as an organization that on a routine basis maintains an inventory of the material in question for sale as a vendor or use as a contractor or subcontractor. A vendor, contractor, or subcontractor purchasing a supply of material on a one-time basis for a particular project does not qualify as a supplier.

1.2.1 Subsection 106.15, "Domestic Materials and Products", of the specifications (see Note below) outlines the "Buy America" requirements for steel and iron materials and products. Certificates for these materials and products are required to be submitted in accordance with Subsection 106.15.

Note: ADOT Contracts and Specifications Section has issued Stored Specification 106DMAT, which is shown in Figure 5. This Stored Specification modifies the Standard Specifications by adding Subsection 106.15.

1.3 The contractor shall submit an original or copy of the certificate to the Engineer. The certificate shall be retained in the project file.

1.4 A certificate shall accompany each lot of material delivered to the project. If multiple deliveries of a lot are made to the project, the first shipment must be accompanied by a certificate. Subsequent deliveries shall be accompanied by either a copy of the certificate, or a shipping document that contains identification indicating that the material delivered is represented by the certificate.

1.5 The procedures specified herein and in Subsection 106.05 of the specifications have been developed to ensure compliance with the specifications and to standardize certification procedures. Policy and Procedure Directives are issued by Materials Group for materials that require further explanation or have additions or deviations from the general requirements. Materials requiring a Certificate of Compliance or a Certificate of Analysis that are currently covered by Policy and Procedure Directives are:

1. Chemical and Air Entraining Admixtures for Portland Cement Concrete
2. Curing Compounds
3. Emulsified Bituminous Materials
4. Hydraulic Cements, Fly Ash, Natural Pozzolan, Silica Fume, and Lime
5. Reinforcing Bars
6. Timber Guardrail Posts and Blocks
7. Glass Beads for Striping Materials

2. CERTIFICATE REQUIREMENTS

2.1 Specific information that is required to be included in Certificates of Compliance and Certificates of Analysis is given in Subsection 106.05 of the specifications, as shown in Figure 4.

2.2 Subsection 106.15 of the specifications, as shown in Figure 5, requires that certificates for steel and iron materials and products additionally certify that all manufacturing processes to produce steel and iron materials and products, and any application of a coating to iron or steel, occurred in the United States.

2.3 An example of a Certificate of Compliance is given in Figure 1. Manufacturers or suppliers may use Department distributed certificate forms, as issued for some materials through Materials Group Policy and Procedure Directives, or they may use forms of their own choice or origin so long as all the requirements are met.

2.4 Each certificate shall be checked for compliance to the specified requirements. If certificates are received which are deficient, the project should retain the certificate and return a copy to the contractor, notifying him in writing how the certificate is deficient. The material represented by a deficient certificate is unacceptable for use until an acceptable certificate is received.

3. MATERIALS CERTIFICATE LOG

3.1 For each project, a Materials Certificate Log shall be kept. All materials which require a certificate, and documentation of certificates received, shall be listed.

3.2 The log shall include the description/identification of the material being certified, the type of certificate required (Certificate of Compliance or Certificate of Analysis), the date the certificate was received, the date the material was checked against the certificate to assure the material received is the material represented by the certificate, the name of the person making the inspection of the material/certificate, and whether or not the certificate is acceptable.

3.3 The log shall include a "Comments" area for any further explanation or clarification, such as action taken in handling deficient certificates. If the Engineer directs testing on any material received with a certificate, the identification of the sample by sample number, date sampled, etc. shall be noted in the comments area for reference to testing performed.

3.4 An example of a Materials Certificate Log that may be used is shown in Figure 2. Acceptable alternates, such as computer generated reports, may be used provided the required information is given.

3.5 At the completion of the project, the resident engineer shall sign and date the completed log. A copy of the Materials Certificate Log shall be attached to the Materials Sample Checklist which is submitted to the Regional Materials Engineer along with other materials related documents.

4. MATERIALS REQUIRING CERTIFICATES

4.1 Figure 3 provides a listing of various items which require either a Certificate of Compliance or a Certificate of Analysis. It is not intended that this list address all items for which either a Certificate of Compliance or a Certificate of Analysis is required. The applicable Standard Specifications and project Special Provisions will govern in determining the need for either a Certificate of Compliance or a Certificate of Analysis.

ABC Supply Company

1234 South XYZ Street
Somewhere, Arizona 56789
Phone: (602) 555-5555

CERTIFICATE OF COMPLIANCE

This is to certify that the following material, manufactured and supplied by ABC Supply Company complies in all respects with the requirements of Subsection 1009-2.01(B) of the Arizona Department of Transportation Specifications.

Description of Material: Crumb Rubber, Type B, for Asphalt-Rubber
Quantity: 65,000 pounds
Lot Number: 999-999

This material is derived from processed whole scrap tires or shredded tire materials. The tires from which this material is produced are taken from automobiles, trucks, or other equipment owned and operated in the United States. The processing to manufacture this material does not produce, as a waste product, casings or other round tire material that can hold water when stored or disposed of above ground.

I hereby state that I have the legal authority to bind ABC Supply Company.

(Signature)
I. M Boss
President

(Date)
Date

EXAMPLE CERTIFICATE OF COMPLIANCE

FIGURE 1

ARIZONA DEPARTMENT OF TRANSPORTATION
MATERIALS CERTIFICATE LOG

PROJECT NO. _____ CONTRACTOR _____ SHEET _____ OF _____

DESCRIPTION / IDENTIFICATION OF MATERIAL	TYPE OF CERT. REQ'D.	DATE CERT. REC'D	DESCRIPTION OF MATERIAL	CHECKLIST							DATE MATERIAL CHECKED AGAINST CERT.	CERT. ACCEPTABLE (Y / N)	INSPECTOR	COMMENTS
				QUANTITY REPRESENTED	MAT'L IDENTIFICATION	COMPLIANCE STATEMENT	AUTH. SIGNATURE/DATE	TEST RESULTS (CERT. OF ANALYSIS)						

RESIDENT ENGINEER _____ (Signature) _____ DATE _____

FIGURE 2

CERTIFICATE OF COMPLIANCE	CERTIFICATE OF ANALYSIS
Asphalt-Rubber Materials	Asphalt Cement for Bituminous Mixes (prior to production)
Bituminous Materials	Emulsified Bituminous Materials (not preapproved)
Bank Protection Metal Items	Bearing Pads
Chain Link Cable Barrier	
Chain Link Fence Materials	
Concrete Admixtures	
Concrete and Metal Pipe	
Curing Compounds	
Damp Proofing, Water Proofing Materials	
Delinerators and Markers	
Geosynthetics/Geotextile Fabrics	
Glass Beads	Glass Beads for Dual Component Pavement Markings
Guard Rail Materials	Guard Rail Anchor Bolts
Joint Materials	High Strength Bolts, Nuts, Washers, and Anchor Bolts
Paint	
Preformed Plastic Pavement Marking	
Prestressing and Post-Tensioning Steel	
Prismatic Reflectors	
Raised Pavement Markers	
Retroreflective Sheeting	
Reinforcing Steel	
Roadside Sign Supports	
Seeding and Planting Materials	Steel Piling
Sign Panels and Related Materials	Structural Metals
Spillway, Downdrain, Inlet and Outlet Materials	Structural Steel
Thermoplastic Pavement Markings	Dual Component Pavement Markings
Traffic Controller Assembly	
Trees, Shrubs, and Plants	
Wire Fence Materials	

FIGURE 3

* USE ON ALL PROJECTS *

(106CERT, 09/14/12)

SECTION 106 CONTROL OF MATERIAL:

106.05 Certificates: of the Standard Specifications is revised to read:

(A) General:

The contractor shall submit to the Engineer an original or copy of either a Certificate of Compliance or a Certificate of Analysis, as required, prior to the use of any materials or manufactured assemblies for which the specifications require that such a certificate be furnished.

Certificates shall be specifically identified as either a "Certificate of Compliance" or a "Certificate of Analysis".

The Engineer may permit the use of certain materials or manufactured assemblies prior to, or without, sampling and testing if accompanied by a Certificate of Compliance or Certificate of Analysis, as herein specified. Materials or manufactured assemblies for which a certificate is furnished may be sampled and tested at any time, and, if found not in conformity with the requirements of the plans and the specifications, will be subject to rejection, whether in place or not.

Certificates of Compliance and Certificates of Analysis shall comply with the requirements specified herein, the ADOT Materials Testing Manual, and applicable ADOT Materials Policy and Procedure Directives.

(B) Certificate of Compliance:

A Certificate of Compliance shall be submitted on the manufacturer's or supplier's official letterhead, and shall contain the following information:

- (1) The current name, address, and phone number of the manufacturer or supplier of the material.
- (2) A description of the material supplied.
- (3) Quantity of material represented by the certificate.
- (4) Means of material identification, such as label, lot number, or marking.
- (5) A statement that the material complies in all respects with the requirements of the cited specifications. Certificates shall state compliance with the cited specification, such as AASHTO M 320, ASTM C 494; or specific table or subsection of the Arizona Department of

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FIGURE 4 (Continued on next page.)

Transportation Standard Specifications or Special Provisions. Certificates may cite both, if applicable.

- (6) A statement that the individual identified in item seven below has the legal authority to bind the manufacturer or the supplier of the material.
- (7) The name, title, and signature of the responsible individual. The date of the signature shall also be given.

Each of the first six items specified above shall be completed prior to the signing of the certificate as defined in item seven. No certificate will be accepted that has been altered, added to, or changed in any way after the authorized signature has been affixed to the original certificate. However, notations of a clarifying nature, such as project number, contractor, or quantity shipped are acceptable, provided the basic requirements of the certificate are not affected.

A copy or facsimile reproduction of the original certificate will be acceptable; however, the original certificate shall be made available upon request.

(C) Certificate of Analysis:

A Certificate of Analysis shall include all the information required for a Certificate of Compliance and, in addition, shall include the results of all tests required by the specifications.

**** USE ON ALL PROJECTS ****

(106DMAT, 2/15/11)

SECTION 106 - CONTROL OF MATERIALS: of the Standard Specifications is modified to add:

106.15 Domestic Materials and Products:

Steel and iron materials and products used on all projects shall comply with the current "Buy America" requirements of 23 CFR 635.410.

All manufacturing processes to produce steel and iron products used on this project shall occur in the United States. Raw materials used in manufacturing the steel and iron products may be foreign or domestic. Steel or iron not meeting these requirements may be used in products on this project provided that the invoiced cost to the contractor for such steel products incorporated into the work does not exceed either one-tenth of one percent of the total (final) contract cost or \$2,500, whichever is greater.

Any process which involves the application of a coating to iron or steel shall occur in the United States. These processes include epoxy coating, galvanizing, painting, or any other coating which protects or enhances the value of covered material.

The requirements specified herein shall only apply to steel and iron products permanently incorporated into the project. "Buy America" provisions do not apply to temporary steel items, such as sheet piling, temporary bridges, steel scaffolding and falsework, or to materials which remain in place at the contractor's convenience.

The contractor shall furnish the Engineer with Certificates of Compliance, conforming to the requirements of Subsection 106.05, which state that steel or iron products incorporated in the project meet the requirements specified. Certificates of Compliance shall also certify that all manufacturing processes to produce steel or iron products, and any application of a coating to iron or steel, occurred in the United States.

Convict-produced materials may not be used unless the materials were produced prior to July 1, 1991 at a prison facility specifically producing convict-made materials for Federal-aid construction projects.

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FIGURE 5