

**STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION**

**SUPPLEMENT 1042  
606 GUARDRAIL CERTIFICATION PROGRAM**

**1/19/2007**

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**1042.01 Scope**

Guardrail materials and associated guardrail components meeting the materials requirements of the ODOT Construction and Materials Specifications 710.06, 710.12, 710.14 thru 16, standards or plans will be acceptable for direct shipment and immediate use in construction projects. Producer/suppliers conforming to this supplement are authorized to provide certified guardrail products. This supplement makes no changes or revisions to any ODOT, ASTM or AASHTO specifications for guardrail and/or associated components. Producer/suppliers will direct ship guardrail material to ODOT projects. Certified materials are not transferable.

**1042.02 General Program Requirements**

Producer/Suppliers conforming with this supplement become responsible for assuring all certified guardrail materials meet specification requirements by:

1. Understanding and ordering all materials in conformance with the applicable specifications.
2. Assuring certified test results are complete, accurate, and conform to specification requirements.
3. Performing any actual physical tests, either mechanical, dimensional, coating or chemical, to document specification compliance.
4. Documenting materials shipment by using the Department's electronic certification form (TE-24).
5. Establishing quality control systems assuring specification materials are shipped to projects.
6. Keeping all documentation that provides proof materials conform to specifications. Keep records for three (3) years from date certified. Include certified test data, quality control records, physical test results,

and shipping documents.

7. Providing a producer/supplier Quality Control Plan (QCP) which details all processes listed above.

#### **1042.03 Producer/Supplier Certification Procedure**

Submit a letter to the Office of Materials Management (OMM) requesting inclusion into the program. Sign the letter by a company representative having the legal authority to bind the company to the requirements of this certification program. Include:

1. Legal name of the company
2. Location and address of the company where materials will be stored and shipped from.
3. Statement that the company representative read and understands the responsibilities required of a certified producer/supplier conforming to this supplement.
4. Quality control representative's (QCR) name. The producer/supplier's QCR will be the Department's point of contact and is accountable for compliance to the QCP.
5. List of the guardrail construction items (1042.08) the producer/supplier will be supplying under certification

#### **1042.04 Producer/Supplier Quality Control Plan**

Submit a written Quality Control Plan (QCP) to OMM for approval. Include the procedures and processes for ordering, testing, accepting, verifying, controlling, storing, shipping, documenting and recording the guardrail materials' compliance with specifications. Include at least the following:

Procedures for assuring materials meet applicable ODOT, ASTM or AASHTO specifications including:

- a. Performing acceptance tests on any materials where no test data exists. [if performing, or having tests performed, provide evidence of ability to test and to certify all test results. Approved private laboratories may also be used]
- b. Evaluating test results against specifications assuring materials meet requirements for both test results and frequency of testing.
- c. Evaluating certified test results from sub-suppliers for compliance with all specification requirements. The certified producer/supplier is responsible for acceptability of all materials shipped under their TE-24 certification document.
- d. Assuring guardrail component materials have the required verification, certification and documentation required by this certification program.
- e. Assuring complete and accurate materials shipments. Have defined QC procedures for assuring shipments are not made until materials test results are complete, documented and accepted.

- f. Describe tracking, controlling and processing of records to tie tests, tests results, and certified test data to certified shipments and the bill of lading.
- g. Define documentation systems used for the three(3) year documentation retention period
- h. How the QCR will be ODOT's point of contact and responsible for certification. Describe the QCR responsibilities in the QCP. Describe other employee's specific responsibilities if more than one employee will be involved in certification duties

#### **1042.05 Quality Control Plan Acceptance**

Submit your QCP to OMM for review. OMM will review the QCP within 30 days and accept, reject or accept as noted. Revise and re-submit rejected QCPs. Revise and forward accepted as noted QCPs for the record.

There is no standard quality control plan. Each producer/supplier will develop their plan. OMM will not provide standard plans. Provide a QCP above the minimum to help assure a quality operation. OMM will meet with any producer/supplier to help them eliminate multiple submissions, misunderstanding and communication issues.

#### **1042.06 Supplier/Producer QCR Training**

The Quality Control Representative (QCR) may complete an ODOT training program.

#### **1042.07 Supplier/Producer QCR Competency Demonstration**

Request a site visit by the Department's guardrail Quality Assurance Inspector (QAI) after the QCP and QCR are accepted. The QAI will witness the QCR's capability to perform materials evaluation, testing, verification, documentation and record keeping for materials compliance and conformance with the QCP and specification requirements.

#### **1042.08 Shipping of Certified Materials to a Project**

Ship certified materials to projects using the TE-24 electronic documentation program. Producer/suppliers will be furnished sample ID numbers for each guardrail construction material item they are certified to supply. Include a bill of lading with any TE-24 defining the individual components incorporated in the guardrail construction material item shipment.

Guardrail construction material items include:

1. Guardrail - lineal feet/meter
  - A. W beam
  - B. Thrie beam
2. Wood Posts - Each \*
  - A. posts
  - B. Blocks
3. Steel Posts - Each \*
  - A. W posts
  - B. Steel W blocks
4. End sections - Each

- A. Bridge terminal component
- B. Terminal connector
- C. Buffer end
- D. Flared end
- E. Anchor assemblies Type B-98
- F. Anchor assemblies Type E-98
- G. Other Anchor assemblies

5. Impact Attenuators - Each \*\*

- A. Impact attenuator Type 1-98
- B. Impact attenuator Type 2-98
- C. Impact attenuator Type 3-98

6. Hardware/Misc - Each \*\*\*

- A. Hardware for guardrail
- B. Hardware for end sections
- C. Other miscellaneous components not listed that are components needed for installation of a completely installed guardrail

\*\* Use actual quantity of Each Impact Attenuator assembly. Define component parts in bill of material.

\*\*\* Use quantity of one(1) for each hardware/Misc shipment. Define the individual components on the shipment bill of material.

Producer/suppliers not currently on the TE-24 system can access the Department's web site for application information [<http://www.dot.state.oh.us/testlab/applists/vWarehouse/odotvw.htm>] or call OMM at 614-275-1300.

Properly complete a TE-24 for project shipment. Refer to the Department's web site for instructions.

Correct TE-24s include:

1. The state Project number
2. The correct construction item
3. The quantity of the construction item shipped
4. Correct reference number of the project item[for projects where there are multiple guardrail items each reference number will have a separate entry on a correct TE-24]
5. The correct sample ID number

Example info on a TE-24:	
A typical certified TE-24 guardrail shipment might include four correct lines for EACH REFERENCE	
1	Guardrail
2	Posts
3	End Sections
4	Hardware/Misc

Delivery of Individual fence construction material items may be by various certified suppliers. Further breakdown of the materials components for certification is not an option. Producer/supplier's are responsible for acceptability of materials shipped under their TE-24.

Transfer of materials by TE-24 is not an alternative.

#### **1042.09 Quality Assurance**

Random inspections will be performed. ODOT quality assurance inspectors (QAI) will check testing procedures, QCP compliance, actual dimensions and coating thicknesses, and documentation at the certified producer/supplier. OMM may obtain random samples from the producer/supplier's stock or at the project. Random samples will be tested. For any non-specification materials, OMM will determine the cause.

Following the accepted QCP which documents specification compliance relieves the producer/supplier of responsibility for non-specification material. Failed samples may require modifying the current accepted QCP. Not conforming with the accepted QCP makes the producer/supplier responsible for replacement of non-specification material and possible loss of certification under 1042.10.

#### **1042.10 Loss of Certification**

Producer/suppliers not conforming with their QCP and/or specification requirements may lose their certification. Criteria for loss of certification is:

1. Three (3) non-compliance items in a single QA inspection of a producer/supplier.
2. Any single non-compliance item repeated three (3) times in any six(6) month period.
3. Two (2) non-compliance items in two (2) consecutive QA inspections.

Items 1 thru 3 defined by the QAI as non-critical or unusual may allow the producer supplier retention of certification but will require revising their QCP; providing additional training for their QCR; and/or redemonstrating understanding of the QCP processes.

4. QAI validation of improper materials testing, incomplete test results or false test data will mean loss of certification.

Producer/suppliers will lose certification under four (4) and are responsible for replacement of all non-conformance materials.

5. Loss of a producer/suppliers Quality Control Representative

Producer/suppliers will lose certification under five (5) until a replacement meets this supplement's requirements.

Appeal Items 1 thru 3 to the Administrator, Office of Materials Management. There is no appeal of items 4 and 5 . There will be no grace period for removal. Minimum removal period is 180 days.

#### **1042.11 Re-certification**

Producer/suppliers may re-apply for certification after their removal period. For removal under 1042.10, item 5, the producer/supplier may end the removal period by supplying an acceptable QCR.

**Designer's Note**

None required. Supplement establishes procedures for becoming a certified Guardrail materials supplier. Activation of the supplement will be through boiler plate proposal note and direct reference in the specifications.