

**STATE OF OHIO
DEPARTMENT OF TRANSPORTATION**

**SUPPLEMENT 1019
CERTIFICATION PROCEDURE FOR CORRUGATED METAL PIPE**

December 6, 2001

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1019.01 Scope. Corrugated pipe materials and their components meeting 707.01, 707.02, 707.03, 707.04, 707.05, 707.07, 707.11, 707.12, 707.13, 707.14, 707.15, 707.21, 707.22, 707.23, 707.24 and 707.25 of the Department's Construction and Materials Specifications will be acceptable for direct shipment and immediate use in construction projects. Producer/suppliers conforming to this supplement are authorized to provide certified corrugated pipe products. This supplement makes no changes or revisions to any ODOT, ASTM or AASHTO specifications for corrugated metal pipe. Producer/suppliers will direct ship corrugated metal pipe (CMP) to ODOT projects. Certified materials are not transferable.

1019.02 General Certification Requirements. Producer/suppliers conforming with this supplement become responsible for assuring all certified CMP 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 conforming to specification requirements.
3. Performing any actual physical tests, including mechanical, dimensional or chemical, documenting conformance with the applicable specification.
4. Documenting materials shipments by using the Department's electronic certification form (TE-24).
5. Having a quality control system that assures shipment of specification materials.
6. Keeping all documentation that provides proof materials conformed 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. Assuring all component materials, bolts, coupling bands, etc., used in final assembly meet all specification requirements.
 8. Providing a Quality Control Plan (QCP) which details all processes listed above.

1019.03 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 supplement. Include:

1. the legal name of the company.
2. the location and address of the company where materials will be stored and shipped from.
3. a statement that the company representative read and understands the responsibilities required of a certified producer/supplier conforming to this supplement.
4. a warrantee against costs involved in corrective action due to inclusion of non specification material.
5. a blanket statement no supplied steel products are from foreign steel sources (including Canada or Mexico).
6. the 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.
7. a list of the CMP items (1019.07) the producer/supplier will be providing under certification.

1019.04 Producer/supplier Quality Control Plan. Submit a Quality Control Plan (QCP) for approval. Include the procedures and processes for ordering, testing, accepting, verifying, controlling, storing, shipping, documenting and recording the CMP materials compliance with specifications. Include at least the following:

1. Perform 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.
2. Evaluate test results against specifications assuring materials meet requirements for both test results and frequency of testing.

3. Evaluate certified test results of suppliers and sub-suppliers of materials for compliance with all specification requirements. The certified producer/supplier is responsible for acceptability shipped under their TE-24 certification document.
4. Assure complete and accurate materials shipments. Have defined procedures for assuring shipments are not made until materials test results are complete, documented and accepted.
5. Describe tracking, controlling and processing of records to tie tests, test results, and certified test data to certified shipments and the bill of lading.
6. Methods of retrieving and/or identifying non specification materials shipped in spite of item four(4), including notification of ODOT
7. Define documentation systems used for the three (3) year documentation period. Include at least:
 - A. Certified test data for steel or aluminum sheet, plate, fasteners, angles showing compliance with all specification requirements. Tie to the product and specification. If in-house testing is used to either accept or authenticate materials, that data will be included.
 - B. For coatings: Type and date coated, quality control records showing coating measurements meeting specification requirements.
 - C. Diameter and corrugation quality control records.
 - D. Quantity shipped including length, number of bands, plates, fasteners, etc.
 - E. Tracking to ODOT project.
 - F. Accessory certifications.
8. 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.

1019.05 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. ODOT will not provide standard plans. Provide a QCP's above the minimum to help

assure a quality operation. ODOT will meet with any producer/supplier to help eliminate multiple submissions, misunderstandings and communication issues.

1019.06 Producer/suppliers Yearly Requirements. Submit the Department a guarantee that all metal sheet and coil will meet the applicable AASHTO or ASTM specifications for each type of metal sheet or coil used in producing CMP under certification.

Semiannually, have an approved private laboratory sample bituminous material from the dip tank used in producing bituminous coated CMP furnished the Department. Have the samples tested and furnish certified test data to the Office of Materials Management (OMM). If the initial sample fails, have two additional samples taken and tested. If either of the additional samples fail, the producer/supplier will lose certification until suitable additional controls are developed in their QCP. Results of samples taken and tested by other Departments of Transportation are acceptable. If three (3) consecutive semiannual samples pass, OMM will accept annual sampling.

Sample and test mortar lining material following similar sampling requirements, testing procedures, re-sampling and results reporting, certification loss and QCP revision required for bituminous material.

Semiannually, have an approved private laboratory sample polymeric coatings directly from the actual application operation. Have the laboratory test the samples and provide certified test data to the Office of Materials Management (OMM). If samples fail, the producer/supplier will lose certification until suitable additional controls are developed in the QCP. Eliminate sampling and testing by keeping records of the polymeric coating applicators actual test results required under AASHTO M246.

1019.07 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 CMP construction material item they are certified to supply. Include a bill of lading with any TE-24 defining the individual components incorporated in the CMP construction item shipment.

When supplying structural plate or metal box culverts, either steel or aluminum, also include assembly diagrams, fastener assembly and field inspection requirements, and individual quantities on the bill of lading for assembly and anchor bolts, nuts, washers, foundation angles, channels, and any other subassembly items.

CMP construction shipping items include:

707.01 Metallic Coated Corrugated Steel Conduits and Underdrains

707.02 Metallic Coated Corrugated Steel Conduits

707.03 Structural Plate Corrugated Steel Structures

707.04 Pre-coated, Galvanized Steel Culverts
707.05 Bituminous Coated Corrugated Steel Pipe and Pipe Arches with Paved Invert
707.07 Bituminous Coated Corrugated Steel Pipe and Pipe Arches with Paved Invert
707.11 Mortar Lined Corrugated Steel Pipe
707.12 Corrugated Steel Spiral Rib Conduits
707.13 Bituminous Lined Corrugated Steel Pipe
707.14 Bituminous Lined Corrugated Steel Pipe
707.15 Corrugated Steel Box Culverts
707.21 Corrugated Aluminum Alloy Conduits and Underdrains
707.22 Corrugated Aluminum Alloy Conduits
707.23 Aluminum Alloy Structural Plate Conduits
707.24 Corrugated Aluminum Spiral Rib Conduits
707.25 Corrugated Aluminum Box Culverts

All quantities are for lineal feet/meters of pipe.

Producer/suppliers not currently on the TE-24 system should 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. 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 CMP pipe 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 certified TE-24 for any CMP shipment would include:

- 1 CMP - in comments diameter or span and rise

Delivery of Individual CMP 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.

1019.08 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 certified

producer/suppliers. OMM may obtain random samples from the producer/supplier's stock or the project. Random samples will be tested. For any non-specification material, 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 1019.09.

Any two failed samples in ten, excluding samples in 1019.06, will mean loss of certification under 1019.09 and responsibility for replacement costs associated with the materials.

1019.09 Loss of Certification. Producer/suppliers not conforming with their QCP and/or specification requirements may lose 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 re-demonstrating understanding of the QCP processes.

4. QA sample failures described in 1019.08.
5. Coating sample failures described in 1019.06.
6. QAI validation of improper materials testing, incomplete test results or false test data will mean loss of certification.

Producer/supplier's will lose certification under 4, 5 or 6 and are responsible for replacement of all non-conformance materials.

- 7 Loss of a producer/supplier's Quality Control Representative

Producer/suppliers will lose certification under seven (7) until a replacement is provided.

Appeal Items 1 thru 3 to the Administrator of the Office of Materials Management. There is no appeal of items 4 thru 7. There will be no grace period for removal. Minimum removal period is 180 days.

1019.10 Re-certification. Producer/suppliers may re-apply for certification after their removal period. For removal under 1019.09, item 7, 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 corrugated metal pipe materials supplier. Activation of the supplement will be through boiler plate proposal note and direct reference in the specifications.