

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
QUALIFIED PRODUCT POLICY
FOR
CORRUGATED ALUMINUM ALLOY PIPE (CAAP) & SPIRAL RIBBED ALUMINUM
PIPE (SRAP)

1.0 General:

All manufacturers who wish to produce Corrugated Aluminum Alloy Pipe (CAAP) and Spiral Ribbed Aluminum Pipe (SRAP) for SCDOT projects must be included on Qualified Product List (QPL) 68. This policy provides the requirements for producers to be added to QPL 68, and outlines the requirements regarding, product certification, and product identification.

All CAAP and SRAP producers that desire to be listed on QPL 68 must participate in the Corrugated Metal Pipe (CMP) audit and evaluation program of the American Association of State Highway and Transportation Officials (AASHTO) National Transportation Product Evaluation Program (NTPEP).

Until July 29, 2020, producers may be conditionally added to QPL 68 pending successful NTPEP audit. The producer must provide evidence that they have applied for NTPEP compliance audit.

For more information on this qualification program, visit the NTPEP web site at <http://www.ntpep.org/>. Producers must be listed as compliant with NTPEP SP01, "Qualification of Highway Product Manufacturers Through the Use of NTPEP Audits," and "NTPEP Committee Work Plan for Evaluation of Corrugated Metal Drainage Pipe."

2.0 Initial:

2.1 Once NTPEP compliance is achieved, send the following by mail, or electronically:

2.1.1 A letter requesting inclusion on QPL 68 including the following:

- Physical address of the facility
- Name and contact information for Quality Control Supervisor/Point of Contact

2.1.2 A copy of the most recent NTPEP certificate.

- 2.1.3 A copy of the NTPEP audit report and comparison test results from NTPEP designated laboratory.
- 2.1.4 A copy of the producer's response to any deficiencies noted by NTPEP.
- 2.1.5 A hydrostatic pressure test certification and copies of test results for each joint design for the range of pipe sizes, conducted at the producer's facility.
 - 2.1.5.1 Perform a hydrostatic test at the pressures appropriate for the application. Tests are to be performed and reported on sizes 18, 24, 54, and 120 inches and joint system combinations that will be used in field applications and listed on QPL 68. The hydrostatic test will be performed only one time, unless there is a change in the product. This data and a certification of pressure testing for applicable sizes needs to be submitted with the initial product submittal to the Structural Materials Engineer.

to:

Caleb Gunter, PE
Structural Materials Engineer
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(803) 737-6694
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- 2.2 Once this documentation has been reviewed, and it is determined that the pipe producer is compliant with NTPEP, that producer will be added to QPL68.
- 2.3 The SCDOT may require and review additional information, including information related to NTPEP findings, and require additional alterations to testing or documentation before the producer's mill can be added to QPL 68.
- 2.4 The SCDOT reserves the right to sample pipe produced for SCDOT projects and test or observe testing for conformance with the specifications.

3.0 Annual Requirements and Disqualification of Producers

- 3.1 To remain on QPL 68, the pipe producer must be audited annually by NTPEP. If at any time the pipe producer becomes non-compliant with the

- NTPEP CMP Program, that producer will be removed from QPL 68 until they are reinstated to a state of compliance.
- 3.2 The SCDOT may disqualify a producer if they fail to manufacture, test, accept, or certify in accordance with the procedure set forth in this policy or the QC program outlined during their most recent NTPEP audit.
 - 3.3 In the event that the pipe producer appears to be in compliance with all the requirements of this policy, but the end product does not meet the Department's specifications, then the State Materials Engineer may take steps towards suspending the producer's SCDOT qualification status. If the problem has not been properly corrected within 30 business days, the State Materials Engineer will revoke the qualification status of the producer until the producer demonstrates that all the issues have been properly resolved.

4.0 Manufacture and Materials:

- 4.1 **Manufacture:** All CAAP and SRAP shall be manufactured in strict accordance to the dimensions and details shown on the SCDOT Standard Drawings, approved shop drawings, plans, or AASHTO specifications.
- 4.2 **Materials:**
 - 4.2.1 Use only pipe gages listed in Table 714-810B for CAAP and 714-605B for SRAP of SCDOT Standard Drawings 714-810-02 and 714-605-02 respectively.
 - 4.2.2 Aluminum alloy sheets or coils shall conform to the applicable requirements of AASHTO M 197 for alclad alloy 3004-H34 for annular pipe and alclad alloy 3004-H32 for helical pipe.
 - 4.2.3 The sheet material shall conform to the chemical composition limits in AASHTO M 197.
 - 4.2.4 The sheet material shall conform to the mechanical composition limits in AASHTO M 197 when tested prior to corrugating or other fabrication.
- 4.3 **Products:** All CAAP and SRAP products must comply with the following:
 - 4.3.1 All CAAP and SRAP products shall conform to AASHTO M 196.
 - 4.3.2 Supplemental Technical Specification 714 (SC-M-714)

- 4.3.3 SCDOT Preconstruction Design Memorandum PCDM-05 for the design cover height for the project and pipe material chosen,
- 4.3.4 SCDOT Standard Drawings
- 4.3.5 Engineering Directive Memorandum 24 (EDM 24)
- 4.4 Marking: Each product shall be marked in accordance with AASHTO M 196 and shall contain an adhesive backed tag or sticker (no smaller than 2" high and 3" wide) on the inside of each product displaying the following information:
 - 4.4.1 The name of the facility where the product was manufactured.
 - 4.4.2 The date it was shipped.
 - 4.4.3 Diameter
 - 4.4.4 AASHTO designation

5.0 Shipment Requirements

- 5.1 Every shipment of CAAP or SRAP must be shipped with the following minimum information:
 - 5.1.1 Quantity of material shipped
 - 5.1.2 Size of material shipped
 - 5.1.3 Thickness of material shipped
 - 5.1.4 Heat number of material shipped
 - 5.1.5 A signed or stamped dated certification that the described product meets the SCDOT Qualified Product Policy