

**STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION  
SUPPLEMENT 1066**

**PLASTIC PIPE ACCEPTANCE PROGRAM  
October 18, 2002**

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**1066.01 Scope.** This supplement defines the certification requirements for providing High Density Polyethylene (HDPE) pipe products conforming to 707.31, 707.32 or 707.33. The Department will only accept products from Manufacturers certified under this supplement. This supplement does not change or revise any Department, ASTM or AASHTO materials specifications.

**1066.02 General Program Requirements.**

- A. Certification Program Requirements. Submit a letter to the Office of Materials Management (OMM) requesting inclusion in the certification program and provide the following:
  - 1. Warranty to Department against costs due to inclusion of non-specification material in the Department work.
  - 2. Copy of the Manufacturer's Plastic Pipe Institute's (PPI) certification for 707.32 and 707.33 (AASHTO M294 and MP7) material.
  - 3. Identify all AASHTO M294 products shipped to Department projects for 707.32 and 707.33 with the PPI program mark.
  - 4. Copy of the PPI accepted quality control plan (QCP).
  - 5. Agreement to use the Department's virtual warehouse (TE-24) electronic system when shipping pipe materials to Department projects.
  - 6. Statement the company has read and understands the requirements of this supplement and have the letter signed by an employee with legal authority to bind the company to the requirements of this supplement.

7. Designation of a quality control representative (QCR) for each certified plant. Provide their name, address, telephone number and e-mail address.
8. Additions not in the PPI accepted QCP required for quality control in the manufacture of 707.31 (AASHTO M252). State whether raw materials and finished pipe testing and inspection frequencies for 707.31 are the same as for 707.32 and 707.33 product. (See section 1066.04)
9. Statement that the raw materials used to manufacture pipe covered by 707.31 comply with the cell class requirements specified in AASHTO M252.
10. If desired for use, a request to have quality control processes reviewed and approved by Department for the use of non-virgin material in 707.31. (see 1066.03)

Manufacturers cannot certify for only 707.31 (AASHTO M252) without meeting the certification requirements of 707.32 and 707.33.

The Department's certification program requires the HDPE Manufacturer's plants becoming certified under the Plastic Pipe Institute's (PPI) Protocol for Third Party Validation of Manufacturer's certification. All pipe sizes covered under 707.32 or 707.33 will be included for certification.

- B. Non Certified Manufactures. Manufacturers who are not certified by PPI at the time of their request letter will have to provide the following when requesting certification:
1. Documentation that they are in the process of becoming PPI certified and a schedule of when the certification process will be complete.
  2. The QCP submitted to PPI for approval.
  3. Agreement to complete certification by January 1, 2003 or six months from the date of the request letter, if that date would be after January 1, 2003.
  4. Agreement to produce all 707.31, 707.32 and 707.33 items for Department under the requirements of the Department's specifications and using PPI accepted materials (with the exception of 707.31 materials) while awaiting final PPI certification.

**1066.03 Additional Requirements To PPI Certification.** The Manufacturer will provide OMM with the virgin HDPE polyethylene materials used in production, including the Supplier/Manufacturer, the brand name, the general production ranges of the material, and an example test report issued by the Supplier/Manufacturer of the raw materials. Non-virgin materials may be used in 707.31, if the Manufacturer identifies the source of supply, provides a third party certification report that the resin complies with the cell class requirements specified in AASHTO M252, and that the quality control procedures ensure the use of consistent and controlled raw material components. The Department will be the final authority when determining non-virgin materials acceptance.

Manufacturers will meet the following modifications of PPI's Protocol for Third Party Validation of Manufacturer's Certification:

**Table 1066.03-1**

| <b>PPI Section</b>   | <b>Addition or Revision</b>   |
|--|---|
| 4.2  | All pipe sizes listed in Department specifications 707.32 and 707.33 will be tested. If PPI does not test the pipe size, have the size tested by a certified laboratory to show the pipe profile meets 707.32 or 707.33.  |
| 4.2  | If PPI chooses to not test all pipe sizes under their similar attribute acceptance clause, then document the untested pipe size to the Department and guarantee the raw materials, the profiles, the quality control, and test frequencies will be the same as an actual PPI tested pipe.   |
| 4.2  | If the PPI Administrator decides products can be classed together for testing, provide a copy of that decision to the Department.   |
| 4.4d(2)  | Non-performing tests is not an option under this supplement.  |
| 4.7(b)   | The Manufacturer will notify the Department of the change by letter.  |
| 5.1d   | The Manufacturer will notify the Department by copy of request to PPI.  |
| 5.2a   | The Manufacturer will either authorize the PPI Administrator to notify the Department at the same time the pipe Manufacturer is notified of a non-compliance, or the Manufacturer will notify OMM immediately after being notified by PPI. The Manufacturer will inform the Department of ongoing procedures toward corrective action or resolution of the issues. Manufacturers assuming the responsibility of notifying OMM will automatically lose certification for failing to make the notification. |
| 6.1  | The Manufacturer will inform OMM when an inspection occurred and provide the inspection's final results.  |
| 6.3  | Manufacturer's testing equipment calibration certificates will be made available to the Department upon request.  |
| 6.4  | The Manufacturer will immediately notify the OMM, provide a copy of PPI's report, and a copy of what corrective action the Manufacturer is taking.  |
| 7.1  | The Manufacturer will immediately notify OMM.*  |
| 7.2  | The Manufacturer will immediately notify OMM.*  |
| 7.3  | The Manufacturer will notify OMM, provide a list of Ohio Government projects that material has been supplied to and immediately stop shipping materials*  |
| 9.0  | The Manufacturer will authorize PPI to verify to the Department, in writing, that the QCP is approved.  |
| <b>* Failure to notify OMM will mean automatic removal from the certification program.</b> |   |

**1066.04 Quality Control Plan.** The Manufacturer will provide the Department the QCP submitted to PPI under their program and conform to the following additional requirements:

- A. Use the same quality control procedures listed in the PPI approved QCP for 707.31 (M252) and other Department pipe sizes not included in PPI's program including any testing frequencies specified for materials and the pipe product.
- B. If 707.31 requires different quality control procedures than 707.32 or 707.33 materials, document the differences, the reasons why, and obtain approval from OMM.
- C. Define processes for assuring all materials meet cell requirements.
- D. The Manufacturer will use a laboratory, either in-house or private, capable of performing all required tests under the applicable ASTM, AASHTO, and Departmental specifications. The Manufacturer will furnish OMM documentation of the lab facilities and capabilities. If using a private laboratory, the Manufacturer will furnish a copy of the contract with the laboratory.
- E. Keep all quality control test data, for both finished pipe and raw materials, for at least three (3) years.
- F. Establish methods for tying test data to actual materials delivered to Department.
- G. The Manufacturer will furnish a report by May 1, Sept 1, and Dec 1 listing quantities of materials shipped by specification (not size).

**1066.05 Documentation Requirements For Certification.** The Manufacturer will ship product to Department projects using the Department's Virtual Warehouse (TE-24) system. The Manufacturer can access instructions over the internet at:

<http://www.dot.state.oh.us/testlab/applists/vWarehouse/odotvw.htm>

When shipping HDPE materials, the Manufacturer will include a Bill of Lading defining the components being provided under the TE-24 certification.

**Table 1066.05-1**

| <b>Material Code</b> | <b>Description</b>                            | <b>Specification</b> |
|----------------------|---|----------------------|
| 495P31P              | PE CORR PERFORATED M252 CP PIPE               | 707.31               |
| 495P31NP             | PE CORR NON PERFORATED M252 C PIPE            | 707.31               |
| 495P31PS             | PE CORR SMOOTH INT PERFORATED M252 SP PIPE    | 707.31               |
| 495P31NPS            | PE CORR SMOOTH INT NON PERFORATED M252 S PIPE | 707.31               |
| 496P32P              | PE CORR PERFORATED M294 CP PIPE               | 707.32               |
| 496P32NP             | PE CORR NON PERFORATED M294 C PIPE            | 707.32               |
| 494P33P              | PE CORR PERFORATED M294 SP-DP PIPE            | 707.33               |
| 494P33NP             | PE CORR NON PERFORATED M294 S-D PIPE          | 707.33               |

**1066.06 Department Quality Assurance Inspection And Testing.** Furnish the Department four (4) raw material coupons with the Department delivered materials report for testing of flexural strength and modulus density, and percent carbon black. Identify the raw material lots from which the samples were taken from and furnish test data for each of those lots.

The Department will perform random quality assurance inspections. Department Quality Assurance Inspectors (QAI) will check testing procedures, QCP compliance, actual dimensions, and documentation for certified Manufacturers. The QAI may require additional random sampling and testing by the Manufacturer during the inspection. Other samples will be sampled and tested by the OMM.

The Department will evaluate any sample failures for the cause and may require the Manufacturer to modify the QCP and re-test with PPI, depending on the cause of the failed sample. Manufacturers not following an accepted QCP are responsible for replacement of non-specification material and may lose their certification status under 1066.07.

For plants that are further than 350 miles from Columbus, Ohio, Manufacturers will either be responsible for travel costs greater than the Department's in-state meal and lodging limitations, or will pay for an independent inspection agency to perform a minimum of two plant inspections per year. The Manufacturer will authorize the independent inspection agency to perform the inspections and report the results directly to OMM. If the independent inspection agency finds the Manufacturer has deficiencies, the Manufacturer will pay for any independent inspection agency follow-up inspections required by OMM.

**1066.07 Loss Of Certification.** Any Manufacturer not producing pipe meeting specifications, not following their QCP, not using specification materials, or losing PPI certification will be subject to loss of certification. The QAI will evaluate items of non-compliance and if determined as non-critical or unusual, OMM may require the Manufacturer to revise the QCP, provide additional training for their quality control personnel, and demonstrate an understanding of the QCP and its requirements. A major non-compliance, as defined below, will result in an immediate loss of certification.

- A. Three (3) non-compliance items in a single Quality Assurance (QA) inspection of a Manufacturer.
- B. Any single non-compliance item repeated in three (3) consecutive visits.
- C. Two (2) non-compliance items repeated in two (2) consecutive QA inspections.
- D. Improper materials testing, incomplete test results or false test data will mean immediate loss of certification. A Manufacturer who loses certification under (D) will be responsible for replacement of all non-conformance materials and the Department may take action under 105.11 and 106.07.
- E. Loss of a Manufacturer's Quality Control Representative. A Manufacturer will lose certification under (E) until a replacement representative is presented to the Department.

Items (A) thru (C) are appealable to the Administrator of the Office of Materials Management. Items (D) and (E) are not subject to appeal. There will be no grace period for removal.

**1066.08 Re-Certification.** Removal will be a minimum of 180 days. Upon completion of the 180 days a Supplier/Manufacturer may re-apply for certification. The 180-day period may be waived for certification loss under 1066.07 E.