

## POLYETHYLENE CULVERT PIPE FIELD SECTION 1047

**1047.1 SCOPE.** To establish procedures for the inspection, acceptance, and reporting of polyethylene culvert pipe.

### 1047.2 APPARATUS.

(a) Rule with suitable graduations to accurately measure the material to be inspected.

### 1047.3 PROCEDURE.

**1047.3.1 Polyethylene Culvert Pipe.** Polyethylene culvert pipe is to be accepted for use on the basis of the pipe manufacturer having filed the required documents set forth in the Specifications, identification marking, random sampling, and field inspection.

**1047.3.1.1 Manufacturer's Certified Analysis and Guarantee.** Prior to acceptance of polyethylene culvert pipe, the manufacturer shall have furnished the State Project Operations Engineer-Materials, a "Pipe Manufacturer's Certified Analysis" and "Pipe Manufacturer's Guarantee" as required by Specification 1047. A list of those manufacturers who have filed acceptable documents is shown as [Field Section FS-1047 Table 1](#) of this Manual. If random sampling results in the rejection of the polyethylene pipe, acceptance on the basis of pipe manufacturer's certified analysis and guarantee shall immediately be discontinued and all polyethylene pipe of that brand shall then be sampled, tested, and approved prior to use until such time as shall be determined by the State Project Operations Engineer-Materials. The State Project Operations Engineer, will advise all districts should acceptance of a brand by pipe manufacturer's certified analysis and guarantee be discontinued. When test results again indicate consistent compliance to specification requirements, the State Project Operations Engineer will notify all districts to reinstate that brand to the approved list of manufacturers.

**1047.3.1.2 Identification Markings.** Each pipe and fitting is to be clearly marked at not more than 10 ft. [3 meters] intervals by the manufacturer and the marking is to contain the manufacturer's name or trademark, nominal size, AASHTO M294, the plant designation code, and the date of manufacture or an appropriate code.

**1047.3.1.3 Random Sampling.** Random samples are to be obtained from fabricated culvert sections and submitted to the Laboratory for determination of physical properties. A lot shall be considered that quantity of material of each size offered for inspection at one time.

**1047.3.1.3.1** Samples are to be submitted to the Laboratory from approximately 10 percent of the lots of pipe presented for inspection. The sample shall consist of 3 specimens each a minimum of one diameter in length. The specimens shall be obtained from different sections in the lot and shall be taken from the end of the pipe.

**1047.3.1.3.2** If the sample fails to meet the physical requirements, the pipe sampled will be rejected and the lot resampled. A resample will be the same number of specimens as the original sample. The resample must comply in all respects or the entire lot will be rejected.

**1047.3.1.4 Field Inspection.** Field inspection shall consist of checking the identification markings, and random checking of the inside diameter, length, and workmanship.

**1047.4 SAMPLE RECORD.** Field inspection shall be recorded in Site Manager, as described in Automation Sec 3510. The sample record shall include the brand name, manufacturer's name, size, and lengths. The sample record is to indicate acceptance or rejection. If the sample record indicates rejection, the reason for rejection shall be stated in the remarks.

**1047.4.1 Polyethylene Culvert Pipe.** If the sample record indicates acceptance, the basis of acceptance of the pipe shall be that the material is an approved brand and that examination of the material indicates that the material conforms to all of the requirements of the specifications.

Completion of the sample records for materials purchased under a Department purchase order is to be as described in Field Sec 2001 of this Manual.