

199—42.7(476) Engineering standards for pipelines. These engineering standards apply to crossings that do not involve special circumstances such that additional or more stringent engineering standards may be warranted. The determination of such additional or more stringent standards will be determined on a case-by-case basis, according to the procedures in subrule 42.18(2), depending on the facts and circumstances associated with the particular crossing.

42.7(1) General.

a. Except as provided for in this chapter, pipelines crossing railroads shall be constructed in accordance with Part 5, “Pipelines,” of the American Railway Engineering and Maintenance-of-Way Association (AREMA) Manual for Railway Engineering – 2001.

b. For pipelines subject to 49 CFR Part 192, “Transportation of Natural and Other Gas by Pipeline,” or 49 CFR Part 195, “Transportation of Hazardous Liquids by Pipeline,” the appropriate federal standard shall control for pipeline marker signs, valves, corrosion control, welding and weld testing, and pressure testing. The design stress level in such pipelines shall not exceed that permitted by the appropriate federal standard.

c. Polyethylene (PE) pipe may be used as carrier pipe for natural gas pipelines. Polyethylene and polyvinyl chloride (PVC) pipe may be used as carrier pipe for water and wastewater. Such pipe shall be manufactured of materials approved for its intended use by an appropriate standards organization.

d. Slip jointed carrier pipe may be used only for encased water or wastewater pipelines, and the ends of such casings shall be oriented such that drainage from any internal leakage will not endanger the railroad embankment.

e. Casings of material other than steel may be used with railroad company approval.

f. Cathodic protection test boxes located on railroad right-of-way shall be attached to casing vents or installed flush with the ground surface.

42.7(2) Installation methods.

a. Pipe shall be installed using boring, drilling, or jacking methods. Open cut crossings are permitted only with the specific authorization of the railroad company.

b. Pits for boring or jacking shall not disturb the railroad embankment and shall be located at least 30 feet from the track centerline where practical. Pits shall be of the minimum size necessary.

c. Bored crossings shall not be installed using water jetting or other drilling methods that might leave cavities beneath a railroad embankment. Horizontal directional drilling techniques that use drilling mud are permitted.

d. Pipe or casing shall be installed with at least 1 foot of separation from any other pipe or wire in the right-of-way.

e. When boring for pipe greater than 20 inches in diameter is proposed, and the pipe would be installed less than 10 feet below the base of the rail, if the railroad has knowledge of soil conditions in the vicinity which could lead to deterioration of track support if the soil is disturbed, the railroad company may require that a geotechnical study be performed by the public utility to determine if the proposed crossing site is undesirable or requires special construction methods or monitoring.

f. For unusually large pipeline crossings that do not involve special circumstances, or for crossings where geotechnical study has identified potentially destabilizing soil conditions, the railroad company may require that a railroad representative be present during installation, and may also require the presence of a survey crew to monitor the tracks for any change in alignment.