INFO BRIEF 19-6.0 (2/12/19)

Weak Link Design & Recommendations

The Pipeline Safety **Plastic Pipe Rule**, 49 CFR Part 192 – Docket No. PHMSA-2014-0098: Amdt. No. 192-124, RIN 2137-AE93 was published to the Federal Register on 11/20/18 with an effective date of 1/22/19. The effective date was delayed by PHMSA due to the temporary shutdown of the US Federal Government. As of the date of this info brief, the new effective date has not been issued.

This Plastic Rule can be accessed using the following link: https://www.govinfo.gov/content/pkg/FR-2018-11-20/pdf/2018-24925.pdf. A simple word search of the document, using the words "weak link" will highlight the numerous references to and requirements for weak links that have been addressed in this rule making.

PHMSAs proposed Rule language for the use of weak links during trenchless installation received many comments from utilities and industry associations. Based upon the input of these groups, PHMSA settled on the following language (copied from the Final Rule) for this new Rule.

> **§192.3 Definitions.**
> Weak link means a device or method used when pulling polyethylene pipe, typically through methods such as horizontal directional drilling, to ensure that damage will not occur to the pipeline by exceeding the maximum tensile stresses allowed.
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> **§192.329 Installation of plastic pipelines by trenchless excavation.**
> Plastic pipelines installed by trenchless excavation must comply with the following: … (b) For each pipeline section, plastic pipe and components that are pulled through the ground must use a weak link, as defined by §192.3, to ensure the pipeline will not be damaged by any excessive forces during the pulling process.
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> **§192.376 Installation of plastic service lines by trenchless excavation.**
> Plastic service lines installed by trenchless excavation must comply with the following: … (b) For each pipeline section, plastic pipe and components that are pulled through the ground must use a weak link, as defined by §192.3, to ensure the pipeline will not be damaged by any excessive forces during the pulling process.

The device or method used for a weak link must have an ATL (allowable tensile load) rating that is less than that of the pipe being installed. This applies whether using a commercially available device, a "weaker" section of pipe (often achieved by using a different manufactured OD or wall thickness or by machining a pipe section to achieve the same) or another suitable method. PolyPipe supports the use of these methods when the determination of ATL is in accordance with **ASTM F1804-16:** Standard Practice for Determining Allowable Tensile Load of Polyethylene Gas Pipe During Pull-In Installation.

Additional questions regarding this topic should be directed to PolyPipe Engineering/Technical Support at questions@polypipeusa.com.