

NY News Contact: Steve Cooper  
516/623-7615

PPI News Contact: Dana Gecker  
469/499-1048

TESTING COMPLETED FOR  
CORRUGATED HDPE PIPE IN  
SHALLOW COVER RAILROAD APPLICATIONS

157 Ton Rail Cars Used in  
Study of 48-Inch Diameter Corrugated Pipe;  
Report Now Available

IRVING, Texas – **(March 5, 2010)** – A study funded by the Plastics Pipe Institute, Inc. (PPI) that evaluated the successful use of corrugated, high-density polyethylene (HDPE) pipe for use under heavy rail car loads with shallow cover, is now available on-line at the PPI website: [www.plasticpipe.org/drainage/cppa\\_technical.html](http://www.plasticpipe.org/drainage/cppa_technical.html).

The test was conducted by the Transportation Technology Center, Inc. at the Facility for Accelerated Service Testing (FAST) in Pueblo, Colorado where it operates a test bed for railroad track. The methodology of the project included repeatedly running a train consisting of three locomotives with eighty, 315,000 pound rail cars over 48-inch corrugated HDPE pipe with just four-feet of cover from the top of the pipe to the bottom of the rail. In addition to the dynamic performance evaluation, the long -term impact of heavy, static loads on the pipe was assessed by parking the cars, with one set of wheels on the track directly over the same pipe for six weeks. The corrugated HDPE pipe used in the test was manufactured by Advanced Drainage Systems, Inc. (Hilliard, Ohio), a PPI-member company.

"The instrumented pipes performed perfectly after 96 million gross tons of heavy axle loading, with measured strains and deflections well below the material limits." stated Michael Plumier, director of engineering for the PPI's Corrugated Plastic Pipe Division. "The maximum measured combined deflection from construction and dynamic loading was less than 1.5 percent and the maximum deflection due to dynamic loads alone was 0.14 percent. The maximum measured tensile strains were negligible, and the maximum measured compressive strains were less than one percent. Operators noted that track ride quality was acceptable, and no track geometry maintenance was required at the conclusion of the test."

The FAST program has been providing the railroad industry with valuable information since 1976, with the operation of 315,000-pound cars beginning in 1988. The Federal Railroad Administration and the Association of American Railroads jointly fund the FAST program with contributions from individual railroads and the supply industry.



# # #

### **About the PPI**

The Plastics Pipe Institute, Inc. (PPI) is a Texas-based, non-profit organization, founded in 1950, that is the major trade association representing all segments of the plastic piping industry. PPI is dedicated to expanding awareness about plastic pipe systems and promoting plastics as the material of choice for pipe applications. It is the premier technical, engineering and industry knowledge resource that publishes data for use in development and design of plastic pipe systems. Additionally, PPI collaborates with industry organizations that set standards for manufacturing practices and installation methods. For more information about PPI, go to: [www.plasticpipe.org](http://www.plasticpipe.org).