

Field Report

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The Team at ISCO Industries Meets Dalton's Requirements

Dalton, Georgia

Located in Whitfield County, between Atlanta and Chattanooga in Northwest Georgia, the city of Dalton is not to be outdone by its larger neighbors. For years, Dalton Utilities has capitalized on the many advantages of High-Density Polyethylene pipe as an integral component of its gas distribution system. More recently, High-Density Polyethylene pipe has been the primary component in maintaining and upgrading existing potable and wastewater systems. Dalton Utilities serves the needs of their community with carefully planned growth strategies, and High-Density Polyethylene pipe. HDPE pipe offers construction advantages and economic benefits which cannot be achieved with other pipe materials.

Dalton Utilities treated wastewater is distributed through a land application piping (LAS) network. For years, the original aluminum piping system had been a source of repeated maintenance headaches. Steve Bratton& #150; Supervisor of Dalton Utilities - Gas, Water & Wastewater explains that corrosion and leakage at the joints of the 20 ft. pipe segments kept crews tied up and caused system inefficiencies that the utility could no longer tolerate. Bob Seaton, VP of Business Alliances, and Millard Etling, VP President of Engineering, sought to provide a remedy to the problems. Mr. Seaton appreciated the performance polyethylene pipe in Dalton's gas distribution system, and the trenchless construction and pipe rehabilitation applications for polyethylene were decided advantages. Mr. Etling, who had utilized HDPE in his previous experiences at Dow Chemical, appreciated the jointless advantage of HDPE pipe. It was determined that HDPE pipe was the best product for Dalton Utilities' needs.

Replacement of the aluminum (LAS) piping system is complete one year ahead of schedule. Sixty-five miles of 4" and 6"High-Density Polyethylene pipe form the primary arteries of the system. Reynolds Construction sustained an ambitious construction schedule in completing system. On a typical day they installed over 11,000 feet of the pipe. Discharge from the LAS emits from 27,000 sprinkler heads set atop HDPE risers. The system serves to promote the growth of a 9,200-acre harvest timber forest. Wildlife such as deer, turkey and fox flourish in the area.

Satisfaction bred from familiarity has since led Dalton to employ High-Density Polyethylene pipe as the primary pipe material for its potable and wastewater system expansions and potable waterline and sewer rehabilitation work. Among a series of water system expansion projects are the Westside Water Expansion and the Murray County Expansion. These projects, combined, account for over 600,000'of 4"- 8" pipe. Poor quality well water provides the motivation for the projects. And Dalton Utilities, pleased with its growing range of experiences with HDPE, specified the product for the mains and service connections. Overall, the projects are part of a four-year plan. The Murray County job is an excellent example of the advantages availed by the use of HDPE. Large diameter coils of High-Density Polyethylene pipe have allowed contractors, M&M Construction and its sub, Ellis Construction, to achieve over 70% completion of the project in less than 1/3 the allotted 270

days. The Westside project is also progressing rapidly. Potable waterline rehabilitation projects include replacement of hundreds of 2-1/4" cast iron and 2" galvanized steel pipelines. Over 40,000' of existing 4" and 6" mains are also being replaced. All of these projects will enhance Dalton Utilities' service to its existing customer base, while helping them providing clean, safe drinking water to almost 2000 new homes. Future projects promise service to thousands more customers.

As aging clay and iron pipes deteriorated, the wastewater collection systems also needed upgrading. Video inspections indicated serious infiltration into the Dalton treatment system. This problem was not limited to a piping concern, but threatened overburdening the wastewater treatment plants with groundwater infiltration. Enhanced by directional drilling and other trenchless construction methods, Dalton Utilities is renewing its sewage collection system. More than 20,000' of 8"- 16" gravity mains are being replaced. Pipe bursting technology is enabling Dalton to upgrade some mains from 10" to 16" lines. Directional drilling and pipe bursting have reduced the costs and inconvenience typical of such dramatic infrastructure improvements. Jointless leak freeHigh-Density Polyethylene pipe eliminates infiltration and consequently saves the utility millions in wastewater treatment plant expansions. The leak free aspect of HDPE is so appreciated that Dalton Utilities is urging the use of the product up to and including the sewer service connections to new homes.

Dalton Utilities sets high standards for the service it provides to its customers. By enlisting HDPE pipe for this wide variety of applications, they are achieving their goal of providing superior service while exercising acute economic judgement.



