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STUDY CONFIRMS PE'S PERFORMANCE WHEN USED WITH DISINFECTANTS

PE is expected to maintain longevity and performance when used with disinfectants in potable water applications, according to a new study.

Commissioned by the Plastics Pipe Institute and the Alliance for PE Pipe, the study, conducted by Jana Laboratories, examines the various areas of a potable water system including chlorination, durability, oxidative aggressiveness, temperature and pressure/stress. A report on the study is available at http://www.jmeagle.com/pdfs/White_Papers/disinfection.pdf

"The methodology we used for forecasting long-term aging shows that performance is a function of the water quality, water temperature and operating stress, all of which will vary by utility," said Ken Oliphant, Ph.D., P.Eng, executive vice president of Jana Laboratories Inc. "Overall, the methodology developed to project PE pipe performance shows that current generation materials are expected to have excellent longevity across the majority of end-use applications and good performance even in very aggressive end-use environments."

Case studies of actual systems encompassing a range of operating conditions, scope of service and system life were also included. Ontario, Canada-based Jana Laboratories is a world-recognized authority on testing and evaluating the effects of disinfectants on pipe materials.

"To demonstrate and validate the long-term performance of (PE) resins, the industry has been working for more than ten years to develop accelerated test and analysis methodologies that will help project long-term performance in specific end-use environments," said Tony Radoszewski, executive director of the PPI. This report is a result of that effort."

The report contains case study examples, charts, figures, photographs and other illustrations. It also provides a summary of the efforts; details the mechanisms of long-term aging of

PE materials in potable water applications; examines the primary end-use and product factors impacting the long-term aging mechanisms; reports on the methodology to project long-term performance of PE piping materials in potable water applications; validates the methodology; and provides the resulting performance projections based on the currently available data.

"This study helps define PE pipe's performance in a utility and identifies the areas that should be addressed during an evaluation," says Mai Huynh, manager of quality assurance for JM Eagle. "PE pipe materials have been used successfully in potable water applications for more than 50 years and enjoy a consistently high satisfaction rating from water utilities. During this time, there has been a continual evolution in PE resins and their performance in pipe systems."

