



PIMA COUNTY
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TO: Carol Johnson P.E. Sanitary Engineering Manager

THRU: Adam Bliven P.E.

FROM: David C. Logue P.E.

SUBJECT: Polyurethane Paint for Coating Steel Pipe

The construction of the pipeline connecting the Roger Road treatment facility to the Ina Road facility required the use several new materials. In particular the siphons crossing the Rillito River and the CDO Wash were constructed of welded steel pipe coated with a polyurethane material. This combination of materials was installed after a value engineering review of a variety of material and coating combinations. The review included research of other jurisdictions experience with the materials and coatings.

The siphons were put into service at the completion of the plant interconnect piping construction and have been operating with flows ranging from 4 to 16 million gallons per day. After two years of service the siphons were drained to the extent possible and a video camera was inserted to examine the condition of the polyurethane coating. The visible coating showed no signs of delamination, peeling or blisters. There were no indications of rust, corrosion or other signs of damage to the steel pipe.

The coating installed on the siphons was Lifelast Durashield 210, a 100% solids polyurethane material. Based upon the performance of the plant interconnect siphons I would recommend that the combination of welded steel pipe and Lifelast Durashield 210 be considered for installation on future siphon projects or any area where a substitute for ductile iron is required.