

Corrosion Protection Decisions for Concrete Pressure Pipe

Concrete Pressure Pipe (CPP) is inherently corrosion resistant. The exterior mortar coating or concrete provides robust protection for the steel components through passivation. The highly alkaline environment provided by the mortar or concrete creates a passivating film on the steel prestressing wire, steel reinforcement, and/ or steel cylinder of the CPP. This film prevents the possibility of electrochemical corrosion in all but the most extreme environments. For pipe installed in areas with these aggressive conditions, supplemental protection may be needed. AWWA M9 Manual provides guidelines as to when the concrete pressure pipe may need some form of additional corrosion protection. ACPPA has created a tool to help determine when and if supplemental corrosion protection is warranted following the recommendations of M9. Working through the chart below will provide recommendations for corrosion protection of the CPP.

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