

RECENT ADVANCES IN THE EVALUATING COMPOSITE REPAIR TECHNOLOGY USED TO REPAIR TRANSMISSION PIPELINES

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ABSTRACT

For the better part of the past 20 years, composite materials have been used to repair high pressure transmission pipelines. Initial efforts focused on repairing corrosion; however, as confidence in composite repair technology improved the pipeline industry showed greater interest in expanding its usage to repair other anomalies. The repair of dents and mechanical damage was evaluated through research efforts and the results showed significant promise. The reinforcement of other features such as wrinkle bends, branch connections, and corrosion in bends have also been evaluated.

In this paper the author provides results and insights associated with several extensive research programs currently being sponsored by the pipeline industry and numerous composite repair manufacturers. The ongoing focus of these efforts has been to demonstrate to industry the capabilities that composite repair systems have to provide long-term reinforcement to damaged pipelines.

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