Session: 2013-07-19 14:20 - Heliconia Room Level 3
Session 2 Guided Ultrasonics

The application of guided waves for detection of corrosion under pipeline patches

A. Ghavamian*, A. Tamimi
*Advanced NDT, TWI, Tehran, Iran
e-mail: aidin.gha@gmail.com, phone: +989122449475

Abstract
Since the development and commercial availability of guided waves, its applications have been quickly acquiring acceptance as a cost-effective means of screening pipelines in purpose of validating their operational integrity. In the meantime, the applications on which the technique can be used have also increased to cover the patches that traditionally would have required testing efforts that were both time-consuming and costly. This paper is based on new developments of guided waves technique; discussion about the problems caused by localized corrosion occurred under patches via natural focusing and different frequency settings. Preliminary experimental efforts will be presented for various patches showing the influence on axisymmetric wave propagation. Discussion of rising up flexural content due to localized corrosion and comparison with healthy patches. A.Ghavamian, A. Tamimi TWI Official Partner (TWI Persia), Postal Code: 1447783953, Tehran, Iran

Keywords: