

**Proposed Presentation – International Pressure Equipment Integrity Association,  
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**Case History: Advanced NDE and Fitness for Service Assessment of HIC  
Damaged Contactor**

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A sweetening contactor at a gas plant was affected by hydrogen-induced cracking (HIC). Periodic inspection at the gas plant included manual ultrasonic testing (UT) and automated UT techniques. Examination revealed a large area affected by HIC. By API 510, the contactor should have been taken out of service and repaired/replaced.

The contactor was evaluated by API 579-1/ASME FFS-1 2007 Fitness-For-Service (FFS). The observed HIC damage was considered to be acceptable and verified by a pressure test at reduced temperature. Acoustic emission monitoring provided integrity assurance during the proof test and as a continuous in-service surveillance technique.

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