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Promotion of the monograph

Pressure Equipment Integrity Assessment by Elastic-Plastic Fracture Mechanics Methods

written by Aleksandar Sedmak, Stojan Sedmak and Ljubica Milović

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The presented matter is divided in two parts. In first four chapters, theoretical base, design, maintenance and repair, including codes and regulations, necessary to assure the quality required for integrity of pressure equipment during service life, are considered. In the fifth chapter typical case studies are presented, striving to make a balance between theoretical background, design and manufacturing aspects, based on experience from practical application of elastic-plastic fracture mechanics methods for pressure equipment integrity assessment:

- Penstock structural integrity and crack evaluation
- Leakage of spherical storage tanks
- Leakage of dissimilar welds in storage tanks for liquefied carbon dioxide
- Strength and structural integrity of steel containers and small storage tanks
- Microstructure, mechanical properties and cracks in the heat-affected-zone (HAZ) of the weldments.