API RP 579 and Application in the Refining and Petrochemical Industries

D. Osage
The Equity Engineering Group, Inc.
3570 Warrensville Center Road, Suite 210
Shaker Heights, OH 44122, USA
Phone: (216) 283-6010
e-mail: daosage@equityeng.com

ABSTRACT

The API Fitness for Service Recommended Practice is an evergreen document that is continually updated and improved by a committee of industry professionals. It was originally created because most codes, including the ASME and API design codes do not address the fact that equipment degrades while in-service and that deficiencies due to degradation or from original fabrication may be found during subsequent inspections. Fitness-For-Service (FFS) assessments are quantitative engineering evaluations that are performed to demonstrate the structural integrity of an in-service component containing a flaw or damage. API 579 provides guidance for conducting FFS assessments using methodologies specifically prepared for equipment in the refining and petrochemical industry.

A FFS assessment is a multi-disciplinary engineering analysis of equipment to determine whether it is fit for continued service, typically until the next shutdown. The equipment may contain flaws, not meet current design standards, or be subjected to more severe operating conditions than current design. The product of a FFS assessment is a decision to run as is, alter, repair, monitor, or replace; guidance on an inspection interval is also provided. Case studies will be presented as well as explanations of new terms such as future corrosion allowance (FCA) and remaining strength factor (RSF).
Send copy of all information to Greg Alvarado as well, 281-537-8848, 281-414-4288 (cellular), tij@gte.net)