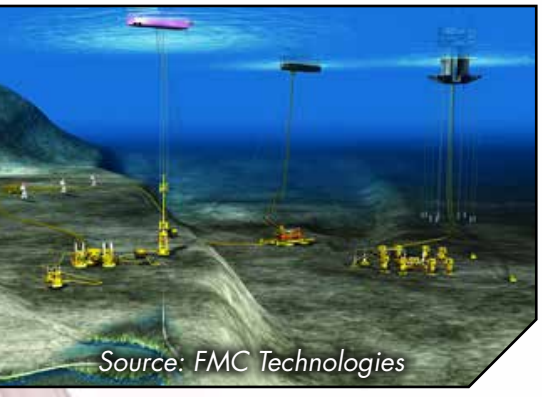

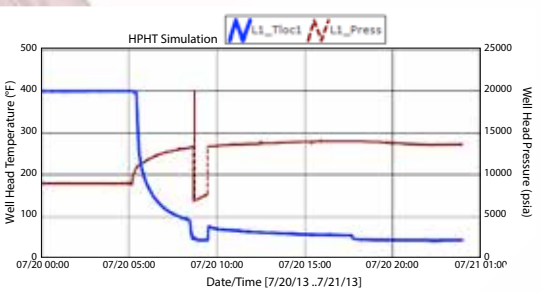

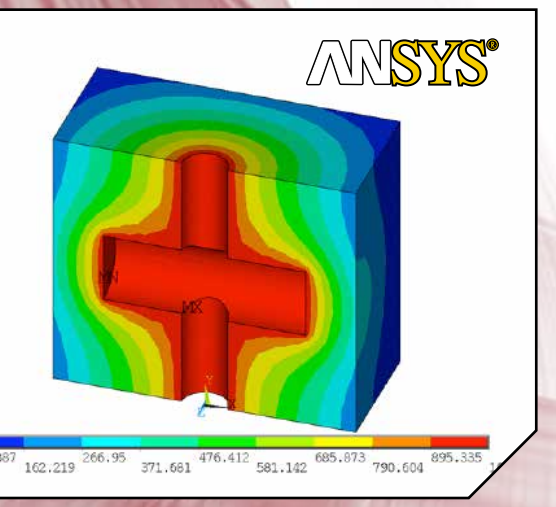

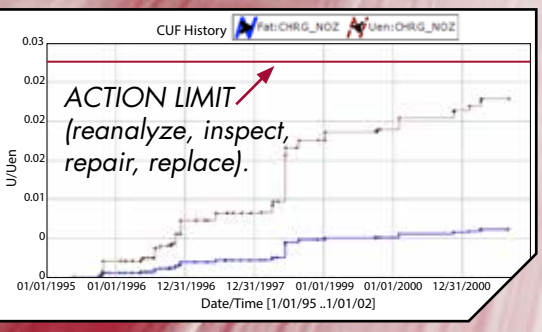

For more information, please contact:

Call Toll Free
877-474-7693
877-4SI-POWER

Visit our website at:
www.structint.com

Email: ***info@structint.com***

Structural Integrity Associates, Inc.®

Fatigue Management Alternative for HPHT Deep Water Applications

Deepwater operations are challenging the industry to develop Well Completion and Well Control Equipment that handle the conditions associated with High Pressure and/or High Temperature (HPHT) Environments.

HPHT Challenges

The technical challenges associated with pressure ratings greater than 15,000 psi or temperature ratings greater than 350°F, and the absence of code guidance, require operators to submit an engineering based approach that demonstrates the completion and other well control equipment, including SSSV's, are capable of performing in the applicable HPHT environment. BSEE is expecting a computational fatigue analysis to demonstrate fatigue tolerance and for operators to institute fatigue life cycle management philosophies during operation.

Industry Leader in Fatigue Monitoring and Risk Reduction

Structural Integrity Associates has over 30 years of experience in providing fatigue management solutions to the nuclear and fossil power industries. Like deepwater, nuclear environments restrict the access to and inspection of critical components. As an alternative to inspection, fatigue damage to these components can be successfully managed with cyclic fatigue, and fatigue crack growth monitoring software. The software utilizes transfer functions which use the available pressure and temperature sensors to calculate the fatigue usage. Structural Integrity's fatigue analysis, monitoring and design experience can be directly applied to offshore equipment to:

- Justify lower weight of HPHT components
- Verify strength and cyclic loading analyses
- Conduct in-service load monitoring
- Perform independent third party design, fatigue and fracture reviews
- Avoid costly replacements or augmented inspections of fatigue-sensitive components
- Address regulatory expectations related to fatigue management

The Structural Integrity Advantage

Our experience includes:

- Expert consulting on environmentally-assisted fatigue (EAF) issues
- Cycle, fatigue, and fatigue crack growth monitoring using SI:FatiguePro
- ASME Code fatigue, fracture mechanics and EAF evaluations
- Design modifications to optimize component fatigue life
- Vibration fatigue management
- Flaw tolerance evaluation and inspection

Our API 17TR8 and ASME Code experts, in conjunction with EPRI (leading power industry R&D organization), developed the power industry standard, and proven the technology and software for fatigue management.

SI:FatiguePro 4.0

Our SI:FatiguePro 4.0 predictive and analytical software uses existing instrumentation to provide real-time fatigue monitoring, including effects such as thermal, pressure, tension, bending and environment. FatiguePro is used in more nuclear plants worldwide than any comparable system and can be adapted to HPHT deep water applications.

When fatigue threatens to shorten the life of your critical components, we offer customized solutions to extend the life of your operations. Our expertise in high pressure design, metal fatigue and materials evaluation will pinpoint limiting areas. We will then work with you to develop practical strategies to manage the detrimental effects of fatigue.

1/22/15