Joint Industry/Government Pipeline R&D Forum

Detection & Assessment

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Pipeline Research Projects
December 11, 2003

MMS Pipeline Research Focus

To be able to assess the safety, risks, and reliability of offshore pipelines, the TAR Program will fund projects in the following areas/categories:

- 1. Corrosion of pipelines;
- 2. Repair and inspection of pipelines;
- 3. Risk assessment and reliability of pipelines;
- 4. Identification and mitigation of geo-hazards on pipelines; and
- 5. Operational development issues related to pipelines (i.e. hydrotesting, leakage).

Detection & Assessment

Evaluation of Methods of Detecting and Monitoring of Corrosion Damage in Risers (Edison Welding Institute)

Project complete as of September 2003

The objective was to evaluate current and candidate technologies and methods for detecting and monitoring corrosion damage in risers and develop ranking criteria for riser inspection optimization.

Final Report Available @ http://www.mms.gov/tarphome/

Detection & Assessment Intelligent Systems for Pipeline Infrastructure Reliability

(Natural Resources Canada)

Ongoing Project.

This co-funded project by the MMS and DOT/RSPA/OPS has the following objectives: (1) To develop a strain monitoring system using currently available fiber-optic sensing and communications systems in combination with data acquisition/management and decision-making systems; (2) To integrate a microbiologically influenced corrosion sensor, along with chemical sensors for pH and CO2, with the fiber-optic system; (3) To develop multifunctional monitoring tools using fiber optics; (4) To develop a system for full and effective utilization of the sensed data, for signal interpretation, and decision making.

Detection & Assessment

World Wide Assessment of Industry Leak Detection Capabilities for Single and Multiphase Pipelines (Texas A&M University)

Project complete as of June 2003

This final report summarizes the current issues for pipeline leak detection by: (1) Identifying the state-of-the-art technologies used in pipeline leak detection; (2) Assess the effectiveness of current leak detection technology; (3) Evaluating the effect of multiphase flow conditions on leak detection technologies.

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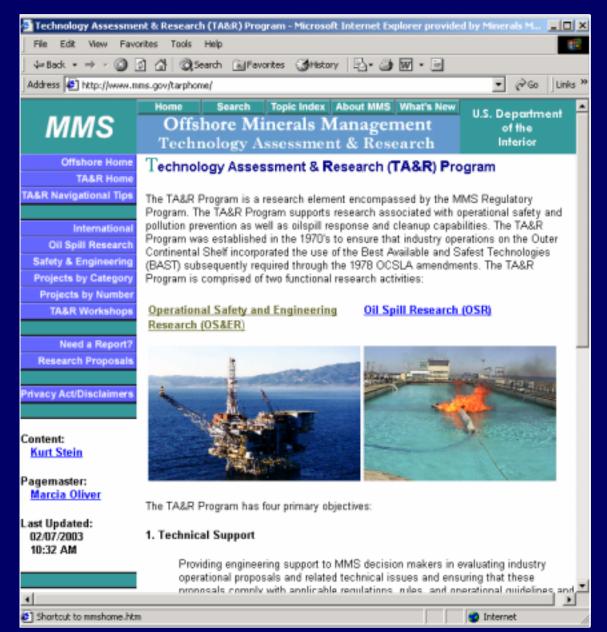
Detection & Assessment

An Assessment of Magnetization
Effects on Hydrogen Cracking for Thick
Walled Pipelines
(Colorado School of Mines)

Ongoing Project

This co-funded project by the MMS and DOT/RSPA/OPS will investigate any effects of having strong magnetism from pigging operations and its role with hydrogen effects for thicker walled pipelines.

http://www.mms.gov/tarphome/



So Which Challenges Have Been Addressed?

- Multiphase & deepwater leak detection
- Vortex Induced Vibrations on Steel Catenary Risres (SCR's)
- Antiquated or lack of Codes and Standards

Thank You!

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