

# **Joint Industry/Government Pipeline R&D Forum**

## **Detection & Assessment**

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Pipeline Research Projects  
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# 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/tarphone/>

# 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 CO<sub>2</sub>, 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.

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

## 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/tarphone/

Technology Assessment & Research (TA&R) Program - Microsoft Internet Explorer provided by Minerals M...

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**Offshore Minerals Management Technology Assessment & Research**

**Technology Assessment & Research (TA&R) Program**

The TA&R Program is a research element encompassed by the MMS Regulatory Program. The TA&R Program supports research associated with operational safety and pollution prevention as well as oilspill response and cleanup capabilities. The TA&R Program was established in the 1970's to ensure that industry operations on the Outer Continental Shelf incorporated the use of the Best Available and Safest Technologies (BAST) subsequently required through the 1978 OCSLA amendments. The TA&R Program is comprised of two functional research activities:



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The TA&R Program has four primary objectives:

- 1. Technical Support**  
Providing engineering support to MMS decision makers in evaluating industry operational proposals and related technical issues and ensuring that these proposals comply with applicable regulations, rules, and operational guidelines, and

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# So Which Challenges Have Been Addressed?

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



# **Thank You!**

**For more information, please contact**

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