



In-line Inspection Association and Standards Generation

Presented by:

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ILI Public Meeting on Inline Inspection Data Analysis

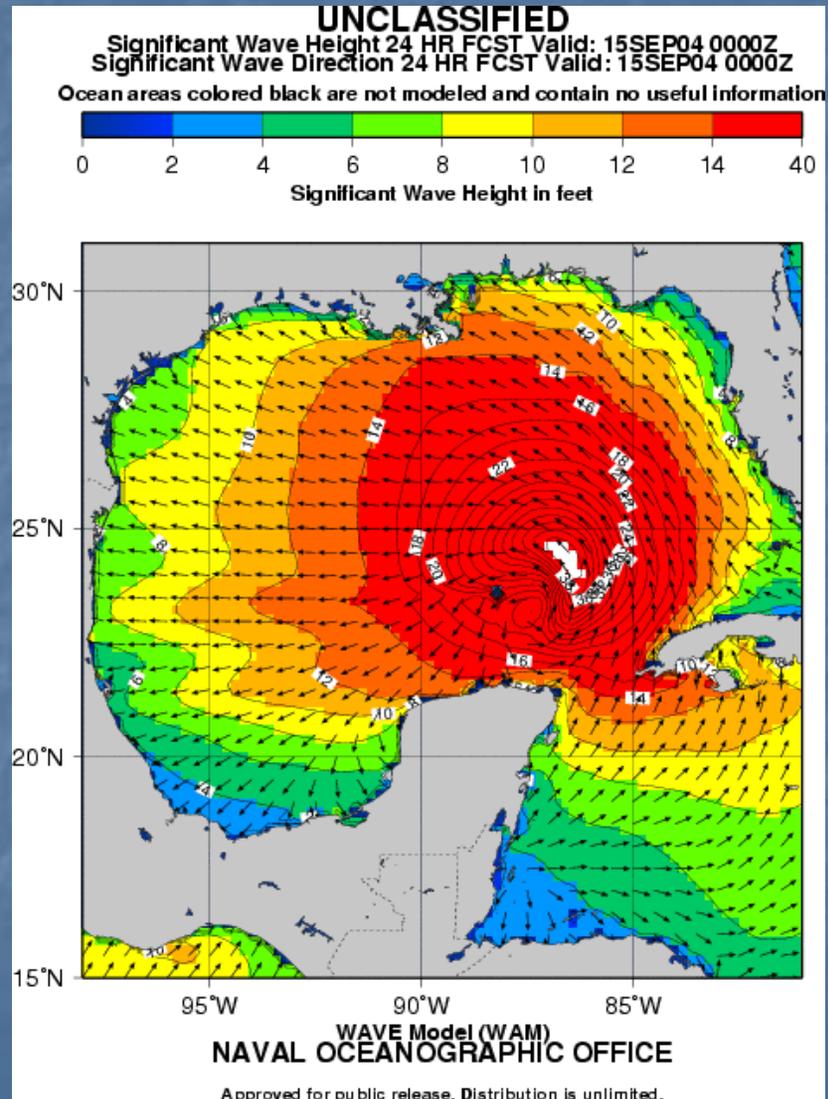
August 11, 2005

Houston, Texas



Agenda

1. Introduction and ILIA Beginnings
2. Standards Writing Involvement
3. Summary



1. Introduction and ILIA Beginnings



Who are we?

ILI Association – founded April 2002

inline inspection association

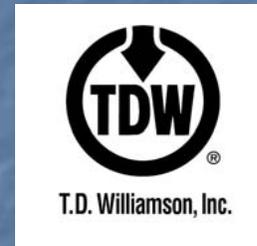
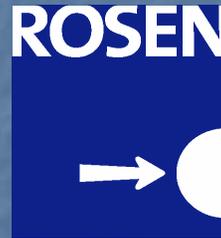


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1. Introduction and ILIA Beginnings



Founding Members



Newest Members



Weatherford



1. Introduction and ILIA Beginnings

Primary Focus

Support the Pipeline Industry in the need to enhance pipeline integrity.

- Raise the awareness of the ILI industry
 - Overall Products & Services
 - Current Technologies
 - Capabilities & Limitations
 - Best Practices
 - R&D initiatives

- Liaise with industry associations and regulatory bodies.

- Participate in the Consensus development of the structures (e.g., API, ASNT, NACE “standards”) that ensure provision of high quality ILI services.



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2. Standards Writing Involvement

Industry Drivers for Standards Development

- Efficiency
 - New technologies or processes are improving the ability to reduce response time while improving data accuracy, reliability and QA/QC.
- Competitiveness
 - Market forces, including new and old players, are promoting new technological developments in equipment and analysis systems.



2. Standards Writing Involvement

The U.S. View and Why Standards were Needed

- The New Regulations have increased the demand for ILI products and services.
- Market demand issues
 - Capital Equipment
 - Robust Systems
 - Trained Personnel
 - Quality Assurance
- Clarity and Commitment to the future are required to manage growth.
- Industry Recommended Practices and standards are being published as we speak.



2. Standards Writing Involvement

What is required in a standard?

- Our Initiatives
 - Overall, improve transparency among providers
 - Engage in the generation of Consensus among providers and operators
 - Provide a Platform from which to Improve & Maintain Quality in a growth market
 - Respond to Industry expectations
 - Pipeline Operator
 - Public
 - Regulatory
 - Service Provider

2. Standards Writing Involvement



ILIA RP 5-3-2002 DRAFT Recommended Practice for the ILI Industry

Table of Contents

- Introduction
 - Background
 - Motivation
 - Objectives
 - Document coverage
- Reference Documents
 - API 1160: Managing System Integrity for Hazardous Liquid Pipelines
 - NACE RP0102-2002: Recommended Practice In-Line Inspection of Pipelines
 - ISO 9001-2000: 'Quality Management Systems – Requirements'
 - API 1161: 'Guidance Document for the Qualification of Liquid Pipeline Personnel'
 - ASNT SNT-TC-1A 2000: 'Personnel Qualification and Certification in Nondestructive Testing'
 - ASME B31G-1991
 - 'Specifications and requirements for intelligent pig inspection of pipelines', Version 2, July 24, 1998, Pipeline Operators Forum
 - AGA PR 3-805: 'A Modified Criterion for Evaluating the Remaining Strength of Corroded Pipe'
- Terms & Definitions
- Quality Management System
 - ISO 9000 Quality System
 - Accreditation

2. Standards Writing Involvement



ILIA RP 5-3-2002 DRAFT (continued) Recommended Practice for the ILI Industry

Table of Contents (continued)

- Management Responsibility
 - Personnel
 - Capital Equipment
 - Service Support
- Personnel Resource Management (reference ASNT)
 - Record Keeping
 - Documentation
 - Training / Continuing Education
 - Assessments
- System Realization (?)
 - System Flowchart
 - Job Preparation
 - Performance Verification (?) (reference API)
 - Execution on site (reference NACE RP0102-2002)
 - Data Analysis & Reporting
 - Customer Requirement confirmation
 - Customer Support
- Measurement Analysis & Improvement
 - Key Performance Indicators (KPI's)
 - Audits
- Appendix
 - Personnel Skills Matrix
 - System Flowchart
 - Onsite Feature Location/Verification Activities
 - Audit Forms



2. Standards Writing Involvement

Three Standards to Address ILI Comprehensively

- ASNT-ILI-PQ-2005 – Dave Culbertson
 - The Personnel Standard
 - Operator Qualifications of all ILI Personnel (Analysts, etc.)
 - Training and Experience Requirements

- NACE RP-0102 – Linda Goldberg
 - The ILI Process Standard
 - Tool Selection
 - Operational Considerations

- API-1163 – Bryan Melan
 - The ILI Systems Standard
 - Equipment
 - Software
 - Analysis



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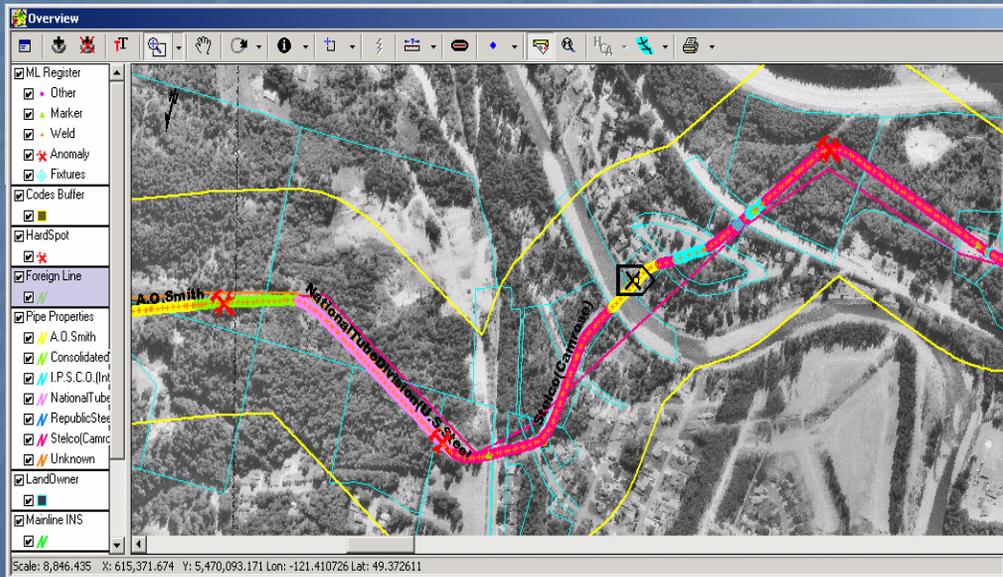
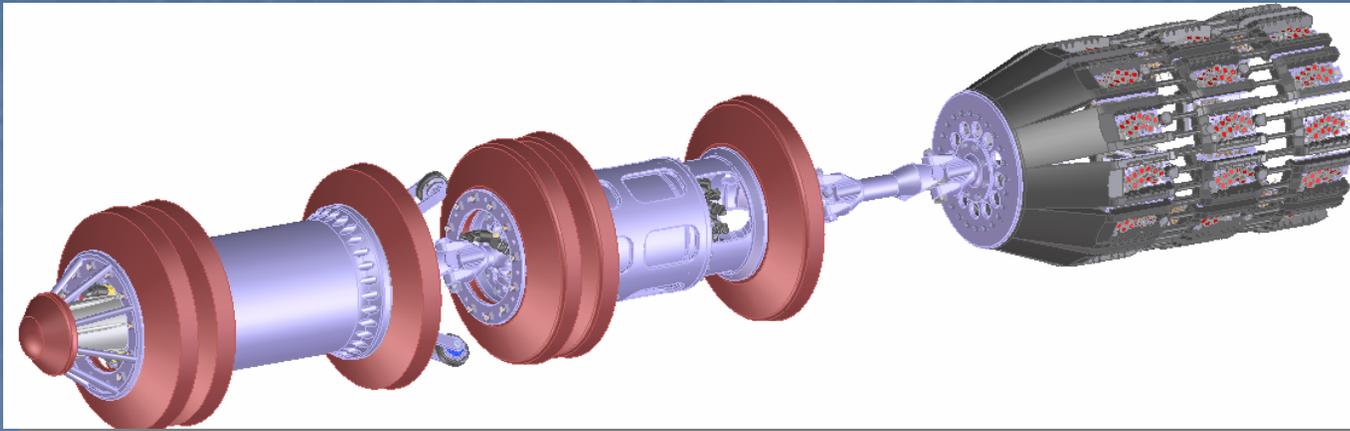


Photo 2.2.2: SCC Anomaly on Pipe Segment



3. *Summary*

- Groups for Standards guidance
 - Participation in Standards Committees has included representation from:
 - **Service Providers**
 - **Pipeline Operators**
 - **Industry Regulators**



3. *Summary*

- The regulations have and will continue to increase the demand for a wider range of ILI-related products and services.
- Clarity and Commitment to the future are required to manage growth.
- ILI Service Providers have a significant time investment in writing and refining standards.
- Balanced and Cooperative standards development efforts from all groups have been made and will continue to be essential to refinement of the standards.



Future Challenges

To increase the pace of the acceptance and implementation of the standards.

Utilize the standards in a way that is effective, consistent, auditable, and efficient.

Continue cooperative efforts between the ILI Service Providers, Operators, and Industry Regulators to improve and update the standards as they mature.

Evaluate and adjust the standards in a way that allows operators to make sound integrity decisions to maximize the benefit versus cost ratio of their maintenance dollars.

Questions?

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