



Ultrasonic Testing Technology & Techniques

**Proper performance and/or evaluation of
NDT performed on your behalf**



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What: Pipeline Owner/Operators:

There is a general lack of clarity and specificity regarding Nondestructive Testing methods and their application in the Operator Qualification rules 49 CFR §192(N) and 49 CFR §195(G) that requires all personnel performing inspections and evaluations of the pipe be properly trained and qualified in each task. Nondestructive Testing (NDT) and specifically Ultrasonic Testing play a significant role in the assessment of pipeline integrity. This course is designed to acquaint pipeline management and operating field personnel who are not familiar with this technology to properly oversee and direct the activity of the NDT technician or contractor in the performance of Ultrasonic Testing used during all phases of pipeline inspections. Lecture and discussion will address the general issues concerning qualification and certification including the Written Practice and proper administration of an NDT program, proper application and reporting techniques, potential pitfalls, and applicable industry standards of these important Ultrasonic Testing technologies and techniques



Process Plant Facility Personnel:

Process Plants were confronted with a similar situation close to a decade ago with 29 CFR 1910.119. NDT, once again, played a significant role

in optimizing the ability of process plants to comply with the safety standards set out by OSHA. Facility management personnel have found this course to be extremely beneficial in preparing them to successfully oversee NDT programs in general and supervise the service companies and individuals who perform the actual testing. The same focus is applied to those in the Process Plant environment as the Pipeline Owner/Operator, i.e., general issues concerning qualification and certification including the Written Practice and proper administration of an NDT program, proper application and reporting techniques, potential pitfalls, and applicable industry standards of Ultrasonic Testing technologies and techniques.

Why: This is one in a series of short term, high impact courses that concentrate on the needs of those who have the responsibility to recognize good versus poor performance produced by those that perform Nondestructive Testing (NDT). Since the various methods used in NDT are not typically within the core competency of many who manage the process, these courses provide immediate insight and instruction.

Note: It's your butt that's on the line - even if your decision was based on bad information produced by poor NDT performance. All of these courses are designed to give you better decision making skills relating to work performed in your behalf by either in-house QC/QA departments or NDT contractors.

Terms and Conditions:

One registration is required per person. Upon receipt of your registration an invoice will be generated for payment. Payment is due 30 days from receipt. ½ of the course fee will be refunded provided written cancellation is received within 48 hours of the course start.



Instructor's Biography

Paul Marks is the President/Director of NDT Training and Placement Center and Co-Founder/President of Ultrasonic Specialists, Inc. both in Houston, Texas.

Paul is a nationally certified American Society of Nondestructive Testing Level III (among the 1st 300 certified to Level III status by the ASNT in 1976) and has 30 years of experience in the specific testing regimens of Ultrasonics, Radiography, Liquid Penetrant and

Magnetic Particle Inspection. He was the author and instructor of the first college level NDT course to be offered in the Houston area in 1979 at San Jacinto College.

Published articles include several dealing with inspection of offshore platforms, refinery piping and vessel corrosion, and non-invasive measurement of sludge deposits in crude oil storage tanks. Most recent articles appear in The Inspectioneering Journal (dealing with technician certification) and the National Association of Corrosion Engineers (NACE) periodical, Materials Technology. Paul has authored seven Distance Learning NDT courses, five textbooks that are in current use for classroom training courses within the NDT Industry, and the Classroom Training Handbook for Ultrasonic Testing (scheduled for publication by the American Society for Nondestructive Testing [ASNT] by mid 2006). He is currently a columnist for The Inspectioneering Journal reporting on emerging technologies in NDT.

AGENDA

1st Day:

- 8:00 Student Sign-In / Distribute Course Package (Book & Name Badge)
- 8:30 Course Overview
- 9:00 NDT Application: ULTRASONIC INSPECTION for Determination of Wall Thickness History
Essential Steps of Effective Application
- 10:00 Break
Explanation of various UT techniques for obtaining thickness values

- Discussion of advantages of one technique vs. another
- 11:00 Open discussion
Summary Comments
- 11:30 Lunch Break
- 1:00 Demonstration of recommended basic techniques for pipeline application
- 2:15 Break
- 3:30 Open discussion
Summary Comments
- 4:00 Conclusion 1st Day

2nd Day:

- 8:30 Demonstration of recommended basic techniques for pipeline application
- 10:00 Break
- 11:00 Open discussion
Summary Comments
- 11:30 Lunch Break
- 1:00 Discussion of advanced techniques for pipeline application
Guided Wave
Phased Array
Monitoring Wall Thickness, Stress, and Temperature in Areas with High Risk Potential
- 2:15 Break
- 3:00 Evaluation of the quality of NDT work performed by testing service companies
About 'Certifications' - How are they properly achieved?
Is a Level II Certificate proof of skill and integrity? - (Little House of Horrors)
Steps to assuring that the NDT applied on your project meets your needs
- 3:30 Open discussion
Summary Comments
Final Test for those interested in accruing CEUs
- 4:00 Conclusion 2nd Day - Presentation of Course Certificates of Completion

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Please complete the attached form and fax to TTI at 713-630-0560

Course Date: _____ Course Cost: **\$1,495.00**

Name/Title _____

Company _____

Address _____

Address _____

City, State, ZIP _____

Country _____

Phone/Mobile _____

Fax _____

E-mail _____

Payment by Credit Card

Circle One: **VISA** **MasterCard** **AMEX**

CC Number _____

Expiration Date _____

Signature* _____

* By signing above I commit to paying the course fee when invoiced

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