

In-line Inspection Personnel Qualification and Certification

**Personnel Qualification and Certification for
In-line Inspection Technologies Used in the
Examination of Pipelines**



The American Society for Nondestructive Testing



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American National Standard In-line Inspection Personnel Qualification and Certification Standard

The American Society for Nondestructive Testing, Inc.

Approved May 2, 2005
Reapproved October 11, 2010

American National Standards Institute

Abstract

This standard applies to personnel whose specific tasks or jobs require appropriate knowledge of the technical principles underlying nondestructive testing (NDT) methods for which they have responsibilities within the scope of their employment. These specific tasks or jobs include, but are not limited to, performing, specifying, reviewing, monitoring, supervising, and evaluating NDT work.

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first Reapproval printing 10/10
ebook 06/13

Errata, if available for this printing, may be obtained from ASNT's web site, www.asnt.org.

ISBN-13: 978-1-57117-215-0 (print)
ISBN-13: 978-1-57117-260-0 (ebook)

Printed in the United States of America

Published by: The American Society for Nondestructive Testing, Inc.
1711 Arlingate Lane
Columbus, OH 43228-0518
www.asnt.org

ASNT Mission Statement:

ASNT exists to create a safer world by promoting the profession and technologies of nondestructive testing.

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Foreword

[This foreword is not a part of American National Standard ANSI/ASNT ILI-PQ-2005 (2010)]

This Standard has been developed by the American Society for Nondestructive Testing, Inc., to establish minimum requirements for the qualification and certification of in-line inspection (ILI) personnel whose jobs require specific knowledge of the technical principles of ILI technologies, operations, regulatory requirements and industry standards as applicable to pipeline systems.

The verb “shall” has been used throughout this document to emphasize the requirements presented herein. It is the employer’s responsibility to address specific needs and to utilize these requirements as appropriate in a written practice.

Inquiries related to this standard should be directed to the Secretary of the Standards Development Committee at the following address:

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The *In-line Inspection Personnel Qualification and Certification Standard* (Document No. ASNT ILI-PQ) was initially drafted, reviewed, and approved by the ILI Subcommittee, which submitted the standard to the ASNT Standards Development Committee. Committee approval of the standard does not necessarily imply that all committee members voted for its approval. At the time it approved this standard, the Standards Development Committee had the following members:

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This standard approved by the Standards Development Committee on July 30, 2010.

Original drafting and review of this standard was under the direction of the ILI Subcommittee which is a subcommittee of the Standards Development Committee. Subcommittee approval of the standard does not necessarily imply that all subcommittee members voted for its approval. At the time it approved this standard, the ILI Subcommittee had the following members:

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IN-LINE INSPECTION PERSONNEL QUALIFICATION AND CERTIFICATION

ANSI/ASNT ILI-PQ-2005 (2010)

Personnel Qualification and Certification for In-line Inspection Technologies Used in the Examination of Pipelines

1.0 Scope

- 1.1 This Standard has been developed by the American Society for Nondestructive Testing, Inc., to establish minimum requirements for the qualification and certification of in-line inspection (ILI) personnel whose jobs require specific knowledge of the technical principles of ILI technologies, operations, regulatory requirements and industry standards as applicable to pipeline systems.
- 1.2 Qualification and certification of personnel shall be the responsibility of the employer.

2.0 Applicable References, Codes, Standards, Specifications and Regulations

- 2.1 ASNT, *Recommended Practice No. SNT-TC-1A*, 2001 edition, Columbus, OH, American Society for Nondestructive Testing, 2001.*
- 2.2 ASNT, applicable supplements to *Recommended Practice No. SNT-TC-1A*, Columbus, OH, American Society for Nondestructive Testing.*
- 2.3 ASNT, *Interpreting SNT-TC-1A*, current edition, Columbus, OH, American Society for Nondestructive Testing. (Contains inquiries to and responses from ASNT's *SNT-TC-1A* Interpretation Panel.)*
- 2.4 API 1163, *In-Line Inspection Systems Qualification Standard*, Washington, D.C., American Petroleum Institute, 2005.
- 2.5 NACE Standard RP0102-2002: Standard Recommended Practice, *In-Line Inspection of Pipelines*, Houston, TX, NACE International, 2002.
- 2.6 NACE International Publication 35100: *In-Line Nondestructive Inspection of Pipelines*, Houston, TX, NACE International, 2000.
- 2.7 *Specifications and requirements for intelligent pig inspection of pipelines – version 2.1*, 6 November 98 (POF), Shell International Exploration and Production B.V., Rijswijk, The Netherlands, 1998.
- 2.8 ASME B31.8s-2001, *Managing System Integrity of Gas Pipelines*, New York, NY, ASME International, 2004.
- 2.9 USDOT 49 CFR Parts 190-199, U.S. Government Printing Office, revised 2000.
- 2.10 API Standard 1160, *Managing System Integrity for Hazardous Liquid Pipelines*, Washington, D.C., American Petroleum Institute, 2001.

*References available from the American Society for Nondestructive Testing (ASNT).

3.0 Definitions

- 3.1 **Advanced Data Analyst:** any person responsible for analysis not typically supported by the ILI tool data set.
- 3.2 **Advanced Data Analysis:** Analysis not typically supported by the ILI tool data set.
- 3.3 **Above Ground Marker (AGM):** A portable device placed on the ground above a pipeline that both detects and records the passage of an in-line inspection tool or transmits a signal that is detected and recorded by the tool.
- 3.4 **AGM Identification:** the process of recognizing and understanding AGM indications within a data set.
- 3.5 **AGM Mover and Tool Tracker:** any person who supervises or oversees the placement of AGMs. Also, those people who track an inspection tool for the purpose of maintaining point-to-point positioning of the inspection tool.
- 3.6 **Anomaly:** a possible deviation from sound pipe material or weld.
- 3.7 **Anomaly Interaction Rules:** criteria that defines the interrelationship between anomalies.
- 3.8 **Certification:** documented testimony of qualification.
- 3.9 **Certifying Authority:** the person or persons properly designated in the written practice to sign certifications on behalf of the employer.
- 3.10 **Certifying Agency:** the employer (or the employer's agent) of personnel being certified with the ultimate responsibility for certification resting with the employer.
- 3.11 **Closed Book Examination:** an examination administered without access to reference material except for materials supplied with or in the examination.
- 3.12 **Comparable:** being at an equivalent or similar level of ILI responsibility and difficulty as determined by the employer.
- 3.13 **Covered Task:** any job duty that this Standard deems to be critical in the execution of an in-line inspection and therefore requires qualification.
- 3.14 **Customer Specifications Reviewer:** the person who reviews contract feature specifications and ensures that the Final Report meets those specifications.
- 3.15 **Data Analysis:** the process through which indications recorded in an ILI are evaluated to classify, characterize and size them.
- 3.16 **Data Analyst:** any person performing data analysis covered tasks.
- 3.17 **Data Processing/Preparation:** the preparation or processing of the inspection data prior to data analysis.
- 3.18 **Data Preparer/Processor:** any person who performs data processing or data preparation.
- 3.19 **Employer:** the corporate, private, public entity or organization, which employs personnel for wages, salary, fees or other considerations for the performance of ILI activities.
- 3.20 **Experience:** work activities accomplished in a specific ILI technology under the direction of qualified supervision, including the performance of the ILI technology and related activities, but not including time spent in organized training programs.