

ASNT STANDARD

PERSONNEL QUALIFICATION
AND CERTIFICATION FOR IN-LINE
INSPECTION TECHNOLOGIES USED IN
THE EXAMINATION OF PIPELINES

2023
EDITION

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ASNT Mission Statement:
ASNT's mission is to advance the field of nondestructive testing.

ASNT Code of Ethics:
The *ASNT Code of Ethics* was developed to provide members of the Society with broad ethical statements to guide their professional lives. In spirit and in word, each ASNT member is responsible for knowing and adhering to the values and standards set forth in the Society's Code. More information, as well as the complete version of the *Code of Ethics*, can be found on ASNT's website, *asnt.org*.

ANSI/ASNT ILI-PQ-2023
American National Standard
In-line Inspection Personnel Qualification and Certification Standard

The American Society for Nondestructive Testing Inc.
Approved 7 April 2023
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.

To the extent applicable to the standard set forth herein, The American Society for Nondestructive Testing Inc. (ASNT) does not assume the validity or invalidity, enforceability or unenforceability of patent rights, registered trademarks or copyrights in connection with any item referred to in this standard, study materials, or examinations. Users of this standard, study materials, or examinations are further cautioned and expressly advised that determination of the validity or enforceability of any such patent rights, trademarks or copyrights, and the risk of the infringement of such rights through misuse of protected materials are the responsibility of the user. Reference to or pictorial depiction of specific types of products or equipment are for purposes of illustration only and do not represent the endorsement of such products or equipment by ASNT.

Employers or other persons utilizing nondestructive testing services are cautioned that they retain full responsibility for ultimate determination of the qualifications of NDT personnel and for the certification process. The process of personnel qualification and certification as detailed in the standard does not relieve the employer of the ultimate legal responsibility to ensure that the NDT personnel are fully qualified for the tasks being undertaken.

This standard is subject to revision or withdrawal at any time by ASNT.

AMERICAN NATIONAL STANDARD

Approval of an American National Standard requires verification by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer.

Consensus is established when, in the judgment of the ANSI Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution.

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Requests for interpretations to this standard shall be made in accordance with Appendix A.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken periodically to reaffirm, revise, or withdraw this standard. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute.

FOREWORD

[This foreword is not a part of American National Standard ANSI/ASNT ILI-PQ-2023]

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 ASNT Standards Council at standards@asnt.org. Inquiry forms can be found on the ASNT website (<https://asnt.org/MajorSiteSections/Standards.aspx>).

The In-line Inspection Personnel Qualification and Certification Standard (Document No. ASNT ILI-PQ) was initially drafted, reviewed, and approved by the ASNT ILI Committee, which submitted the standard to the ASNT Standards Council. Committee or council 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 Council had the following members:

Michael McDaniel, Chair	Gerry Churchwell	Mike Ruddy
Ron Nisbet, Vice Chair	Paul Deeds Jr.	Samir Saad
Paul Lang, Secretary	Brian Laite	Henry Stephens
David Bajula	Raymond Morasse	Marvin Trimm
Michael Bolton	John Pariseau	Michael Turnbow

At the time it approved this standard, the ASNT ILI Committee included:

Paul Deeds, Chair	Carlos Hidalgo	Jeffrey Sutherland
Lisa Barkdull	Micheal Preuit	Jeff Tetz
Bryce Brown	Michael Raisbeck	Jeremy Westfall
Matias Giardino	Jerry Rau	
Timothy Goller	Stacie Sauer	

Ethics Statement

The NDT profession plays a critical role in ensuring public safety by providing information on the condition and integrity of critical infrastructure and products through its various NDT methods and techniques. The NDT profession has a responsibility to act ethically in all activities including the proper collection, interpretation, and reporting of NDT data. To this end, ASNT highly encourages all individuals and companies using this standard/document to incorporate the topic of ethics and ethical behavior of its employees and contractors into their training programs and examinations.

SUMMARY OF CHANGES IN THE 2023 EDITION ILI-PQ

The changes made are also indicated with a line in the margin for easy identification.

- | | |
|--|---|
| 1. Various editorial changes made throughout the document including grammar and numbering. | 28. Revised: 6.4. |
| 2. Updated: Section 2.0 Documents revisions/editions. | 29. Added: 6.5. |
| 3. Revised: 3.1 Advance Data Analyst definition. | 30. Revised: 6.7. |
| 4. Revised: 3.2 Advanced Data Analysis definition. | 31. Revised: 6.7.1. |
| 5. Revised: 3.6 Anomaly definition. | 32. Revised: 7.2. |
| 6. Added: 3.8 Appurtenance definition. | 33. Revised: 7.3. |
| 7. Added: 3.9 Axial Magnetic Flux Technology definition. | 34. Revised: 8.1.1. |
| 8. Added: 3.15 Component definition. | 35. Revised: 8.1.2. |
| 9. Added: 3.22 Electromagnetic Acoustic Transducer (EMAT) definition. | 36. Revised: 8.1.4. |
| 10. Revised: 3.23 Employer definition. | 37. Revised: 8.2.1. |
| 11. Revised: 3.25 Feature definition. | 38. Revised: 8.2.2. |
| 12. Revised: 3.32 In-Field Inspection Data Confirmation definition. | 39. Revised: 8.3.3. |
| 13. Added: 3.40 Mapping Pig definition. | 40. Revised: 9.6.1. |
| 14. Revised: 3.48 Report Generation definition. | 41. Revised: 9.6.3. |
| 15. Revised: 3.56 Written Practice definition. | 42. Revised: 12.1. |
| 16. Added: 3.51 Transverse Magnetic Field Technology definition. | 43. Revised: 12.1.1. |
| 17. Added: 3.53 Ultrasonic Compression Wave Technology definition. | 44. Revised: 12.1.2. |
| 18. Added: 3.54 Ultrasonic Shear Wave definition. | 45. Revised: 13.1. |
| 19. Added: New paragraphs 5.1.1 and 5.1.2. | 46. Revised: 14.1. |
| 20. Revised: 5.2.1.1. | 47. Added: Paragraph 14.2. |
| 21. Revised: 5.2.1.2. | 48. Revised: Recommended Minimum Training and Experience Levels – Tables 1–7. All tables revised to include experience in months and hours. |
| 22. Revised: 5.2.2.7. | 49. Deleted: Note 6. Original verbiage revised under Other. |
| 23. Deleted: 5.3.2.8 Standard and nonstandard analysis. | 50. Revised: Other. |
| 24. Added: 5.3.2.10 Prepare/review reports. | 51. Deleted: Appendix A – Inquiries. |
| 25. Added: 5.3.2.11 Review of customer specification requirements. | 52. Changed: Appendix B – Interpretation Policy to Appendix A. |
| 26. Deleted: 5.3.3.5 Final report analysis review. | 53. Revised: A.1. |
| 27. Revised: 6.3. | 54. Revised: A.2.6. |
| | 55. Deleted: ILI-PQ Inquiry Form. |
| | 56. Added: Summary of Changes in the 2024 Edition. |

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