Qualification of Nondestructive Examination Services for Equipment Used in the Petroleum and Natural Gas Industry

API STANDARD 20D
THIRD EDITION, APRIL 2025



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Qualification of Nondestructive Examination Services for Equipment Used in the Petroleum and Natural Gas Industry

1 Scope

1.1 Purpose

This standard specifies requirements for the qualification of Nondestructive Examination (NDE) services of the suppliers by defining the requirements for establishing procedures and qualification/ validation of procedures used in the manufacturing, servicing, or service of equipment, or both for the petroleum and natural gas industries.

1.2 Applicability

This is applicable to suppliers providing NDE services for equipment used in the oil and natural gas industries. The requirements of this standard apply to magnetic particles, liquid penetrant, eddy current, conventional as well as advanced radiography, and conventional as well as advanced ultrasonic methods of NDE.

2 Normative References

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any addenda) applies.

API Specification Q1, *Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry*

API Specification Q2, *Specification for Quality Management System Requirements for Service Supply Organizations for the Petroleum and Natural Gas Industries*

ASME [1] Boiler and Pressure Vessel Code (BPVC), Section V: Nondestructive Examination

ASNT[2] SNT-TC-1A, *Recommended Practice for Personnel Qualification and Certification in Nondestructive Testing*

ASNT ACCP-CP-1, *ASNT Central Certification Program*

ASTM[3] E1114, *Standard Test Method for Determining the Size of Iridium-192 Industrial Radiographic Sources*

ASTM E1165, *Standard Test Method for Measurement of Focal Spots of Industrial X-Ray Tubes by Pinhole Imaging*

ASTM E1316, *Standard Terminology for Nondestructive Examinations*

ASTM E709, *Standard Guide for Magnetic Particle Testing, 2021 Edition*

EN[4] 12679, *Non-destructive testing—Determination of the Size of Industrial Radiographic Sources—Radiographic Method*

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1 ASME International, Two Park Avenue, New York, New York 10016-5990, www.asme.org.

2 ASNT American Society for Nondestructive Testing, 1711 Arlingate Lane, P.O. Box 28518, Columbus, Ohio 43228, www.asnt.org

3 ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania 19428-2949, www.astm.org

4 European Committee for Standardization, Rue de la Science 23, B-1040 Brussels, Belgium, www.cen.eu.