Heat Treatment Services—Continuous Line for Equipment Used in the Petroleum and Natural Gas Industry

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Suggested revisions are invited and should be submitted to the Standards Department, API, 200 Massachusetts Avenue, NW, Suite 1100, Washington, DC 20001, standards@api.org.

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Introduction

This standard represents an update to the requirements from API 20N, First Edition. It was revised with input from technical experts in the API 20N Task Group. The Second Edition elevates the standard to a higher level of service for the petroleum and natural gas industry.

Highlights of significant changes between the First Edition and Second Edition include:

— Bring in the minimum facility requirements to Section 4;

— Removed marking and final inspection from minimum facility requirements and added identification and traceability and certification;

— Reformatted Section 6 to include updates from recent industry standards such AMS 2750;

— Updated figured for thermocouple locations to improve clarity;

— Improved the evaluation method for optical pyrometer equipment calibration using principles from ASTM 1100;

— Provided an evaluation criteria for temperature stability for induction lines;

— Improved clarity of heat treatment process control; and

— Updated record retention to align with API Specification Q1 and other API standards.

Heat Treatment Services—Continuous Line for Equipment Used in the Petroleum and Natural Gas Industry

1 Scope

1.1 Purpose

This standard specifies requirements for the qualification of suppliers of continuous line heat treatment processes used in the manufacture of equipment for the petroleum and natural gas industries.

1.2 Applicability

This standard is applicable to suppliers providing heat treatment services where API product specifications specify this standard as a requirement for conformance. The requirements of this standard apply to continuous and semi-continuous heat treatment operations that can establish or affect the final mechanical properties. For batch-type heat treatment, refer to API 20H. This standard is applicable to products in tubular, bar, plate, forging, casting, and upset-forged forms. Heat treating that imparts surface hardening or case hardening is outside the scope of this document.

NOTE This standard does not limit the responsibility of any manufacturer of commercial products using continuous line heat treatment services manufactured to API specifications from its responsibility for conformance with all applicable requirements of API specifications.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

ISO[1] 9001, *Quality management systems—Requirements*

3 Terms, Definitions, Acronyms, and Abbreviations

3.1 Terms and Definitions

For the purposes of this document, the following terms and definitions apply.

[1] International Organization for Standardization, Chemin de Blandonnet 8, CP 401, 1214 Vernier, Geneva, Switzerland, www.iso.org.