AS/NZS 2885.5:2012

Australian/New Zealand Standard™

Pipelines—Gas and liquid petroleum

Part 5: Field pressure testing

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee ME-038, Petroleum Pipelines. It was approved on behalf of the Council of Standards Australia on 1 May 2012 and on behalf of the Council of Standards New Zealand on 1 May 2012.
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The following are represented on Committee ME-038:

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Australasian Corrosion Association
Australian Chamber of Commerce and Industry
Australian Institute of Petroleum
Australian Petroleum Production and Exploration Association
Australian Pipeline Industry Association
Bureau of Steel Manufacturers of Australia
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME-038, Petroleum Pipelines, to supersede AS/NZS 2885.5:2002.

The objective of this Standard is to set out methods for the determination of the strength and the leak tightness of a pipeline test section.

This revision includes the following substantial changes:

(a) The document structure is changed to improve its readability.

(b) A new section 'Safety' is included. The new section (Section 2) incorporates safety requirements from the 2002 revision, and introduces new obligations for assessing safety, using the 'Safety management process' of AS 2885.1, *Pipelines—Gas and liquid petroleum*, Part 1: *Design and construction*.

(c) Guidance is provided for freeze sectioning of a pipeline to assist in location of a leak.

(d) In previous revisions of the Standard, the test engineer was required to make engineering (design) assessments. This revision defines the responsibilities of the design engineer and the test engineer, and the design responsibilities moved to AS 2885.1.

(e) The strength test end-point limit is redefined, with three test types being defined. Where there is a possibility of yield in any pipe, additional analysis is required using knowledge gained through research undertaken by the APIA Research and Standards Committee.

(f) The volume-controlled strain (offset volume) strength test end-point limit is deleted since it does not reliably predict premature strain in a few pipes.

(g) The criteria for leak test acceptance are redefined to recognize the effort required to identify leaks in test sections of various volumes.

(h) Criteria are provided for assessing a leak test of large diameter pipe. This revision provides for test sections involving large diameter pipe to be extended to practical lengths, and recognizes the experience from testing the Moomba to Sydney pipeline.

(i) The provision in AS 2885.1 for pneumatic testing of pipelines is recognized.

(j) The requirements for reporting are revised to make them consistent with requirements of other parts of the Standard, and to reflect current industry expectations.

(k) The method for assessing and accepting entrained air is revised.

At the date of publication of this Standard, the research being undertaken by APIA Research and Standards Committee on 'Understanding hydrostatic test uncertainty' is incomplete. Because this research is expected to improve the leak test methods, the results of this research may be incorporated in a future amendment to the Standard.

Statements expressed in normative terms in notes to tables and figures are deemed to be requirements of this Standard.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

CONTENTS

Page