INTERNATIONAL STANDARD

ISO 10417

Second edition
2004-07-01

Petroleum and natural gas industries — Subsurface safety valve systems — Design, installation, operation and redress

Industries du pétrole et du gaz naturel — Systèmes de vannes de protection de fond de puits — Étude, installation, fonctionnement et réparation

Reference number
ISO 10417:2004(E)

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Abbreviated terms 4

5 System configuration 4
5.1 General 4
5.2 System requirements 6
5.3 Equipment requirements 10
5.4 Documentation and data control 13

Annex A (normative) SSSV Redress report (minimum data requirements) 15
A.1 General data 15
A.2 Redress test summary 15

Annex B (informative) Installation 16
B.1 General 16
B.2 Surface-controlled subsurface safety valve 16
B.3 Surface control system 17
B.4 Subsurface-controlled subsurface safety valves — Application to multiple and single completions 18

Annex C (informative) Operations 19
C.1 General 19
C.2 Operation and testing 19
C.3 Recommendations and required documentation 19
C.4 Review and responsibilities of ESD system testing 20
C.5 Important information on system shutdown 20

Annex D (informative) Sizing of subsurface-controlled safety valves 21
D.1 General 21
D.2 Velocity-type SSCSV 21
D.3 Low-tubing-pressure-type SSCSV 22

Annex E (informative) SSSV Testing 26
E.1 Procedure for testing installed surface-controlled subsurface safety valves — Standard depth 26
E.2 Test procedure for installed surface-controlled subsurface safety valves — Deepwater installations 27
E.3 Test procedure for installed subsurface-controlled subsurface safety valves 28

Annex F (normative) Failure reporting 29
F.1 Failure reporting 29
F.2 Minimum information 29

Bibliography 31