

# INTERNATIONAL STANDARD

**ISO**  
**10419**

First edition  
1993-08-01

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## **Petroleum and natural gas industries – Drilling and production equipment – Installation, maintenance and repair of surface safety valves and underwater safety valves offshore**

iTeh STANDARD PREVIEW  
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*Industries du pétrole et du gaz naturel – Équipement de forage et de  
production – Installation, maintenance et réparation en mer des vannes de  
sécurité de surface et des vannes de sécurité sous-marines*

ISO 10419:1993

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Reference number  
ISO 10419:1993(E)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 10419 was prepared by the American Petroleum Institute (API) (as RP 14H, 3rd edition) and was adopted, under a special "fast-track procedure", by Technical Committee ISO/TC 67, *Materials and equipment for petroleum and natural gas industries*, in parallel with its approval by the ISO member bodies.

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## Introduction

International Standard ISO 10419:1993 reproduces the content of API RP 14H, 3rd edition, 1991. ISO, in endorsing this API document, recognizes that in certain respects the latter does not comply with all current ISO rules on the presentation and content of an International Standard. Therefore, the relevant technical body, within ISO/TC 67, will review ISO 10419:1993 and reissue it, when practicable, in a form complying with these rules.

This International Standard is not intended to obviate the need for sound engineering judgement as to when and where this International Standard should be utilized and users should be aware that additional or differing requirements may be needed to meet the needs for the particular service intended.

Standards referenced herein may be replaced by other international or national standards that can be shown to meet or exceed the requirements of the referenced standards.

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# Petroleum and natural gas industries – Drilling and production equipment – Installation, maintenance and repair of surface safety valves and underwater safety valves offshore

## 1 Scope

This International Standard provides guidance for inspecting, installing, operating, maintaining and repairing surface safety valves and underwater safety valves for offshore applications.

## 2 Requirements

Requirements are specified in:

"API Recommended Practice 14H (RP 14H), Third Edition, August 1, 1991, *Recommended Practice for Installation, Maintenance and Repair of Surface Safety Valves and Underwater Safety Valves Offshore*",

which is adopted as ISO 10419.

For the purposes of international standardization, however, modifications shall apply to specific clauses and paragraphs of publication API RP 14H. These modifications are outlined below.

NOTE – A wavy line in the margin indicates the location of a modification to the text of the API document.

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Appendix A: To be deleted.

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Information given in the POLICY is relevant to the API publication only.

Page 4

Information given in paragraphs c, d, e and in the NOTES is relevant to the API publication only.

The conversion of English units shall be made in accordance with ISO 31-3. The content of column two (right-hand side of page 3) shall read as follows:

LENGTH	1 inch (in)	= 25,4 mm (exactly)
PRESSURE	1 pound-force per square inch (lbf/in <sup>2</sup> )	= 6 894,757 Pa
	NOTE 1 bar = 10 <sup>5</sup> Pa	
STRENGTH OR STRESS	1 pound-force per square inch (lbf/in <sup>2</sup> )	= 6 894,757 Pa
IMPACT ENERGY	1 foot-pound force (ft·lbf)	= 1,355 818 J
TORQUE	1 foot-pound force (ft·lbf)	= 1,355 818 N·m
TEMPERATURE	The following formula was used to convert degrees Fahrenheit (°F) to degrees Celsius (°C):	
	$^{\circ}\text{C} = 5/9 (^{\circ}\text{F} - 32)$	
VOLUME	1 cubic foot	= 0,028 316 8 m <sup>3</sup> or 28,316 8 dm <sup>3</sup>
	1 gal (US)	= 0,003 785 4 m <sup>3</sup> or 3,785 4 dm <sup>3</sup>
	1 barrel (US)	= 0,158 987 m <sup>3</sup> or 158,987 dm <sup>3</sup>
MASS	1 pound (lb)	= 0,453 592 37 kg (exactly)
FORCE	1 pound-force (lbf)	= 4,448 222 N

## ISO 10419:1993(E)

FLOW RATE	1 barrel/day	= 0,158 987 m <sup>3</sup> /day
	1 cubic foot per minute (ft <sup>3</sup> /min)	= 0,028 316 85 m <sup>3</sup> /min or 40,776 192 m <sup>3</sup> /day

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### Subclause 5.1, item b (3)

Second sentence shall read:

"If sustained liquid flow exceeds 0,4 dm<sup>3</sup>/min or gas flow exceeds 424,75 dm<sup>3</sup>/min (611,6 m<sup>3</sup>/day), during the pressure holding test, the SSV should be repaired or replaced."

### Subclause 5.2, item b (2)

Second sentence shall read:

"If the absolute pressure buildup in the confine line segment downstream of the USV is in excess of that which represents a flow rate of 0,4 dm<sup>3</sup>/min (0,576 m<sup>3</sup>/day) of liquid or 424,75 dm<sup>3</sup>/min (611,6 m<sup>3</sup>/day) of gas, the USV should be repaired or replaced."

Delete the third sentence starting: "An example...", up to "Appendix A"

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Delete Appendix A.

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# Recommended Practice for Installation, Maintenance and Repair of Surface Safety Valves and Underwater Safety Valves Offshore

API RECOMMENDED PRACTICE 14H (RP 14H)  
THIRD EDITION, AUGUST 1, 1991

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This publication is intended to supplement rather than  
replace individual engineering judgment.

OFFICIAL PUBLICATION



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INSTALLATION, MAINTENANCE AND REPAIR  
OF SURFACE SAFETY VALVES  
AND UNDERWATER SAFETY VALVES  
OFFSHORE

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