

# DIN EN ISO 19900:2005-07 (E)

Petroleum and natural gas industries - General requirements for offshore structures  
(ISO 19900:2002); English version EN ISO 19900:2002

---

## Contents

	Page
Foreword .....	4
Introduction .....	5
1 Scope .....	7
2 Terms and definitions .....	7
3 Symbols and abbreviated terms .....	11
3.1 Symbols .....	11
3.2 Abbreviated terms .....	11
4 General requirements and conditions .....	12
4.1 Fundamental requirements .....	12
4.2 Durability, maintenance and inspection .....	12
4.3 Hazards .....	13
4.4 Design basis .....	13
4.5 Service requirements .....	13
4.6 Operating requirements .....	14
4.7 Special requirements .....	14
4.8 Location and orientation .....	14
4.9 Structural configuration .....	15
4.10 Environmental conditions .....	16
4.11 Construction .....	20
4.12 Decommissioning and removal .....	20
5 Principles of limit states design .....	20
5.1 Limit states .....	20
5.2 Design .....	22
6 Basic variables .....	22
6.1 General .....	22
6.2 Actions .....	22
6.3 Properties of materials and soils .....	25
6.4 Geometrical parameters .....	25
7 Analyses — calculations and testing .....	25
7.1 General .....	25
7.2 Calculation .....	26
7.3 Model testing .....	26
7.4 Prototype testing .....	26
7.5 Existing reference .....	26
8 Design format of partial factors .....	26
8.1 Principles .....	26
8.2 Actions and their combinations .....	27
8.3 Properties of materials and soils .....	29
8.4 Geometrical parameters .....	30
8.5 Uncertainties of calculation models .....	30
8.6 Determination of values for partial factors .....	30
9 Quality control .....	30
9.1 General .....	30
9.2 Responsibilities .....	31
9.3 Inspection and testing .....	31
9.4 In-service inspection, maintenance and repair .....	31
9.5 Records and documentation .....	31

	Page
<b>10</b>	<b>Assessment of existing structures ..... 31</b>
<b>10.1</b>	<b>General..... 31</b>
<b>10.2</b>	<b>Condition assessment ..... 32</b>
<b>10.3</b>	<b>Action assessment ..... 33</b>
<b>10.4</b>	<b>Resistance assessment ..... 33</b>
<b>10.5</b>	<b>Component and system failure consequences and mitigation ..... 33</b>
<b>10.6</b>	<b>Fatigue ..... 33</b>
<b>Bibliography</b>	<b>..... 34</b>