

E DIN EN ISO 19901-2:2020-03 (E)

Erscheinungsdatum: 2020-02-21

**Petroleum and natural gas industries - Specific requirements for offshore structures -
Part 2: Seismic design procedures and criteria (ISO/DIS 19901-2:2020); English
version prEN ISO 19901-2:2020**

Contents	Page
Foreword.....	v
Introduction.....	v
1 Scope	1
2 Normative references	1
3 Terms and definitions.....	2
4 Symbols and abbreviated terms.....	5
4.1 Symbols	5
4.2 Abbreviated terms	6
5 Earthquake hazards.....	7
6 Seismic design principles and methodology.....	7
6.1 Design principles	7
6.2 Seismic design procedures.....	8
6.2.1 General	8
6.2.2 Extreme level earthquake design	9
6.2.3 Abnormal level earthquake design	10
6.3 Spectral acceleration data	11
6.4 Seismic risk category.....	11
6.5 Seismic design requirements	12
6.6 Site investigation	13
7 Simplified seismic action procedure	13
7.1 Soil classification and spectral shape.....	13
7.2 Seismic action procedure	17
8 Detailed seismic action procedure.....	18
8.1 Site-specific seismic hazard assessment.....	18
8.2 Probabilistic seismic hazard analysis.....	18
8.3 Deterministic seismic hazard analysis	19
8.4 Seismic action procedure	20
8.5 Local site response analyses.....	23
9 Performance requirements	23
9.1 ELE performance.....	23
9.2 ALE performance	24
Annex A (informative) Additional information and guidance.....	26
A.1 Scope	26
A.2 Normative references	26
A.3 Terms and definitions.....	26
A.4 Symbols and abbreviated terms.....	26
A.5 Earthquake hazards.....	26
A.6 Seismic design principles and methodology.....	27
A.6.1 Design principles	27
A.6.2 Seismic design procedures.....	27
A.6.3 Spectral acceleration data	28
A.6.4 Seismic risk category.....	29

A.6.5	Seismic design requirements.....	29
A.6.6	Site investigation.....	29
A.7	Simplified seismic action procedure.....	29
A.7.1	Soil classification and spectral shape	29
A.7.2	Seismic action procedure	30
A.8	Detailed seismic action procedure	31
A.8.1	Site-specific seismic hazard assessment	31
A.8.2	Probabilistic seismic hazard analysis.....	31
A.8.3	Deterministic seismic hazard analysis.....	32
A.8.4	Seismic action procedure	32
A.8.5	Local site response analyses	33
A.9	Performance requirements.....	34
Annex B (informative) Simplified action procedure spectral accelerations		35
Annex C (informative) Regional information.....		50
C.1	General	50
C.2	Norway	50
C.2.1	Description of region	50
C.2.2	Technical requirements.....	50
C.3	Canada.....	50
C.3.1	Description of region	50
C.3.2	Regulatory framework.....	50
C.3.3	Technical requirements.....	51
Bibliography.....		53