

| Term | Ref | Standard | Definition |
|----------------------|------------|-----------------|---|
| action | 2.1 | ISO 19900 | external load applied to the structure (direct action) or an imposed deformation or acceleration (indirect action) EXAMPLE An imposed deformation can be caused by fabrication tolerances, settlement, temperature change or moisture variation. NOTE An earthquake typically generates imposed accelerations. |
| action effect | 2.2 | ISO 19900 | effect of actions on structural components EXAMPLE Internal force, moment, stress or strain. |
| air gap | 2.3 | ISO 19900 | clearance between the highest water surface that occurs during the extreme environmental conditions and the lowest exposed part not designed to withstand wave impingement |
| appurtenance | 2.4 | ISO 19900 | part of the structure that is installed to assist installation, to provide access or protection, or for transfer of fluids |
| basic variable | 2.5 | ISO 19900 | one of a specified set of variables representing physical quantities which characterize actions, environmental influences, geometrical quantities, or material properties including soil properties |
| catenary mooring | 2.6 | ISO 19900 | mooring system where the restoring action is provided by the distributed weight of mooring lines |
| characteristic value | 2.7 | ISO 19900 | value assigned to a basic variable associated with a prescribed probability of not being violated by unfavourable values during some reference period NOTE The characteristic value is the main representative value. In some design situations a variable can have two characteristic values, an upper and a lower value. |
| compliant structure | 2.8 | ISO 19900 | structure that is sufficiently flexible that applied lateral dynamic actions are substantially balanced by inertial reactions |
| conductor | 2.9 | ISO 19900 | tubular pipe extending upward from the sea floor or below containing pipes that extend into the petroleum reservoir |
| decommissioning | 2.10 | ISO 19900 | process of shutting down a platform and removing hazardous materials at the end of its production life |
| design criteria | 2.11 | ISO 19900 | quantitative formulations that describe the conditions to be fulfilled for each limit state |
| design service life | 2.12 | ISO 19900 | assumed period for which a structure is to be used for its intended purpose with anticipated maintenance, but without substantial repair being necessary |
| design situation | 2.13 | ISO 19900 | set of physical conditions representing real conditions during a certain time interval for which the design will demonstrate that relevant limit states are not exceeded |
| design value | 2.14 | ISO 19900 | value derived from the representative value for use in the design verification procedure |

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|-----------------------------|------------|-----------------|---|
| exposure level | 2.15 | ISO 19900 | classification system used to define the requirements for a structure based on consideration of life safety and of environmental and economic consequences of failure NOTE The method for determining exposure levels are described in ISO 19902[2]. An exposure level 1 platform is the most critical and exposure level 3 the least. A normally manned platform which cannot be reliably evacuated before a design event will be an exposure level 1 platform. |
| fit-for-purpose | 2.16 | ISO 19900 | meeting the intent of an International Standard although not meeting specific provisions of that International Standard in local areas, such that failure in these areas will not cause unacceptable risk to life-safety or the environment |
| fixed structure | 2.17 | ISO 19900 | structure that is bottom founded and transfers all actions on it to the seabed |
| floating structure | 2.18 | ISO 19900 | structure where the full weight is supported by buoyancy |
| jack-up | 2.19 | ISO 19900 | mobile offshore unit that can be relocated and is bottom founded in its operating mode NOTE A jack-up reaches its operational mode by lowering legs to the sea floor and then jacking the hull to the required elevation. |
| limit state | 2.21 | ISO 19900 | state beyond which the structure no longer fulfils the relevant design criteria |
| mobile offshore unit MOU | 2.20 | ISO 19900 | structure intended to be frequently relocated to perform a particular function |
| nominal value | 2.22 | ISO 19900 | value assigned to a basic variable determined on a non-statistical basis, typically from acquired experience or physical conditions |
| platform | 2.23 | ISO 19900 | complete assembly including structure, topsides and, where applicable, foundations |
| reference period | 2.24 | ISO 19900 | period of time used as basis for determining values of basic variables |
| reliability | 2.25 | ISO 19900 | ability of a structure or a structural component to fulfil the specified requirements |
| representative value | 2.26 | ISO 19900 | value assigned to a basic variable for verification of a limit state |
| resistance | 2.27 | ISO 19900 | capacity of a component, or a cross-section of a component, to withstand action effects without failure |
| return period | 2.28 | ISO 19900 | reciprocal of the probability of exceeding an event during a particular period of time NOTE The return period is the average time (usually in years) between occurrences of an event exceeding a specified magnitude. |
| riser | 2.29 | ISO 19900 | tubular used for the transport of fluids between the sea floor and a termination point on the platform NOTE For a fixed structure the termination point is usually the topsides. For floating structures the riser may terminate at other locations of the platform. |

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| scour | 2.30 | ISO 19900 | removal of seabed soils caused by currents and waves NOTE Such erosion can be due to natural processes or can be due to interruption of the natural flow regime near the sea floor by structural elements |
| splash zone | 2.31 | ISO 19900 | area of a structure that is frequently wetted due to waves and tidal variations |
| structural component | 2.33 | ISO 19900 | physically distinguishable part of a structure EXAMPLE Column, beam, stiffened plate, tubular joint, or foundation pile. |
| structural model | 2.34 | ISO 19900 | idealization of the structural system used for design or assessment |
| structural system | 2.32 | ISO 19900 | load-bearing components of a structure and the way in which these components function together |
| structure | 2.35 | ISO 19900 | organized combination of connected parts designed to withstand actions and provide adequate rigidity |
| structure orientation | 2.36 | ISO 19900 | position of a structure in plan referenced to a fixed direction such as true north |
| taut-line mooring | 2.37 | ISO 19900 | mooring system where the restoring action is provided by elastic deformation of mooring lines |
| topsides | 2.38 | ISO 19900 | structures and equipment placed on a supporting structure (fixed or floating) to provide some or all of a platform's functions NOTE 1 For a ship-shaped floating structure, the deck is not part of the topsides. NOTE 2 For a jack-up, the hull is not part of the topsides. NOTE 3 A separate fabricated deck or module support frame is part of the topsides. |
| abnormal value | 3.1 | ISO 19901-1 | design value of a parameter of abnormal severity used in accidental limit state checks in which a structure should not suffer complete loss of integrity NOTE: Abnormal events have probabilities of the order of 10 ⁻³ to 10 ⁻⁴ per annum. In the limit state checks some or all of the partial factors are set to 1,0. |
| chart datum | 3.2 | ISO 19901-1 | local datum used to fix water depths on a chart or tidal heights over an area NOTE: Chart datum is usually an approximation to the level of the lowest astronomical tide. |
| conditional distribution conditional probability | 3.3 | ISO 19901-1 | statistical distribution (probability) of the occurrence of a variable A, given that other variables B, C, ... have certain assigned values NOTE: The conditional probability of A given that B, C, ... occur is written as P(A B,C,...). The concept is applicable to metocean parameters, as well as to actions and action effects. EXAMPLE: An example related to wave parameters is that A is the individual crest elevation, while B is the water depth and C is the significant wave height. |

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| design crest elevation | 3.4 | ISO 19901-1 | <p>extreme crest elevation measured relative to still water level</p> <p>NOTE : The design crest elevation is used in combination with information on astronomical tide, storm surge, platform settlement, reservoir subsidence and water depth uncertainty and is derived from an extreme value analysis. Because of the simplified nature of the models used to estimate the kinematics of the design wave, the design crest elevation can be different from, usually somewhat greater than, the crest elevation of the design wave used to calculate actions on the structure.</p> |
| design wave | 3.5 | ISO 19901-1 | <p>deterministic wave used for the design of an offshore structure</p> <p>NOTE 1: The design wave is an engineering abstract. Most often it is a periodic wave with suitable characteristics (e.g. height H, period T, steepness, crest elevation, etc). The choice of a design wave depends on:</p> <ul style="list-style-type: none"> - the design purpose(s) considered - the wave environment -: the geometry of the structure - the type of action(s) or action effect(s) pursued. <p>NOTE 2: Normally a design wave is only compatible with design situations in which the action effect(s) are quasi-statically related to the associated wave actions on the structure.</p> |
| extreme value | 3.6 | ISO 19901-1 | <p>design value of a parameter used in ultimate limit state checks, in which a structure's global behaviour is intended to stay in the elastic range</p> <p>NOTE: Extreme events have probabilities of the order of 10⁻² per annum.</p> |
| gust | 3.7 | ISO 19901-1 | <p>brief rise and fall in wind speed lasting less than 1 minute</p> <p>NOTE: In some countries gusts are reported in meteorological observations if the maximum wind speed exceeds approximately 8 m/s.</p> |
| gust wind speed | 3.8 | ISO 19901-1 | <p>maximum value of the wind speed of a gust averaged over a short (3 s to 60 s) specified duration within a longer (1 minute to 1 hour) specified duration</p> <p>NOTE 1: For design purposes the specified duration depends on the dimensions and natural period of the (part of the) structure being designed such that the structure is designed for the most onerous conditions; thus a small part of a structure is designed for a shorter gust wind speed duration (and hence a higher gust wind speed) than a larger (part of a) structure.</p> <p>NOTE 2: In practice, for design purposes, the gust wind speeds for different durations (e.g. 3 s, 5 s, 15 s, 60 s) are derived from the wind spectrum.</p> |
| highest astronomical tide HAT | 3.9 | ISO 19901-1 | <p>level of high tide when all harmonic components causing the tides are in phase</p> <p>NOTE: The harmonic components are in phase approximately once every 19 years but these conditions are approached several times each year.</p> |
| hindcasting | 3.10 | ISO 19901-1 | <p>a method of simulating historical (metocean) data for a region through numerical modelling</p> |

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| long-term distribution | 3.11 | ISO 19901-1 | <p>probability distribution of a variable over a long time scale</p> <p>NOTE: The time scale exceeds the duration of a sea state, in which the statistics are assumed constant (see short-term distribution in 3.25). The time scale is hence comparable to a season or to the design service life of a structure.</p> <p>EXAMPLES: Examples of long-term distributions include the long-term distributions of</p> <ul style="list-style-type: none"> - significant wave height, - significant wave height in the months May to September, - individual wave heights, - current speeds (e.g. for the vortex induced vibrations of drilling risers), - scatter diagrams with the joint distribution of significant wave height and wave period (e.g. for a fatigue analysis), <p>or</p> <ul style="list-style-type: none"> - a particular action effect. |
| lowest astronomical tide LAT | 3.12 | ISO 19901-1 | <p>level of low tide when all harmonic components causing the tides are in phase</p> <p>NOTE: The harmonic components are in phase approximately once every 19 years but these conditions are approached several times each year.</p> |
| marginal distribution marginal probability | 3.13 | ISO 19901-1 | <p>statistical distribution (probability) of the occurrence of a variable A that is obtained by integrating over all values of the other variables B, C, ...</p> <p>NOTE: The marginal probability of A for all values of B, C, ... is written as P(A). The concept is applicable to metocean parameters, as well as to actions and action effects.</p> <p>EXAMPLE: An example related to wave conditions is that A is the individual crest elevation for all mean zero-crossing periods B and all significant wave heights C occurring at a particular site.</p> |
| marine growth | 3.14 | ISO 19901-1 | <p>living organisms attached to an offshore structure</p> |
| mean sea level MSL | 3.15 | ISO 19901-1 | <p>arithmetic mean of all sea levels measured at hourly intervals over a long period, ideally 19 years</p> <p>NOTE: Seasonal changes in mean level can be expected in some regions and over many years the mean sea level can change.</p> |
| mean wind speed | 3.16 | ISO 19901-1 | <p>time averaged wind speed, averaged over a specified time interval</p> <p>NOTE: The mean wind speed varies with elevation above mean sea level and the averaging time interval; a standard reference elevation is 10 m and a standard time interval is 1 hour. See also sustained wind speed (3.33) and gust wind speed (3.8).</p> |
| mean zero-crossing period | 3.17 | ISO 19901-1 | <p>average period of the (up or down) zero-crossing waves in a sea state</p> <p>NOTE: In practice the mean zero-crossing period is often estimated from the zeroth and second moments of the wave spectrum as .</p> |

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| monsoon | 3.18 | ISO 19901-1 | wind which blows for several months approximately from one direction NOTE: The term was first applied to the winds over the Arabian Sea which blow for 6 months from north-east and for six months from south-west, but it has been extended to similar winds in other parts of the world. |
| most probable maximum | 3.19 | ISO 19901-1 | value of the maximum of a variable with the highest probability of occurring NOTE: The most probable maximum is the value for which the probability density function of the maxima of the variable has its peak. It is also called the mode or modus of the statistical distribution. |
| operating conditions | 3.20 | ISO 19901-1 | most severe combination of environmental conditions under which a given operation will be permitted to proceed NOTE: Operating conditions are determined for operations that exert a significant action on the structure. Operating conditions are usually a compromise: they are sufficiently severe that the operation can generally be performed without excessive downtime, but they are not so severe that they have an undue impact on design. |
| polar low | 3.21 | ISO 19901-1 | depression that forms in polar air, often near a boundary between ice and sea |
| residual current | 3.22 | ISO 19901-1 | that part of the total current that is not constituted from harmonic tidal components (i.e. the tidal stream) NOTE: Residual currents are due to a variety of physical mechanisms and comprise a large range of natural frequencies and magnitudes in different parts of the world. |
| return period | 3.23 | ISO 19901-1 | average period between occurrences of an event or of a particular value being exceeded NOTE: The offshore industry commonly uses a return period measured in years for environmental events. The return period in years is equal to the reciprocal of the annual probability of exceedance of the event. |
| scatter diagram | 3.24 | ISO 19901-1 | joint probability of two or more (metocean) parameters NOTE: A scatter diagram is especially used with wave parameters in the metocean context, see A.5.8. The wave scatter diagram is commonly understood to be the probability of the joint occurrence of the significant wave height (Hs) and a representative period (Tz or Tp). |
| sea floor | 3.25 | ISO 19901-1 | interface between the sea and the seabed [ISO 19901-4:2003] |
| sea state | 3.26 | ISO 19901-1 | condition of the sea during a period in which its statistics remain approximately constant NOTE: In a statistical sense the sea state does not change markedly within the period. The period during which this condition exists is usually assumed to be three hours, although it depends on the particular weather situation at any given time. |
| seabed | 3.27 | ISO 19901-1 | materials below the sea in which a structure is founded, whether of soils such as sand, silt or clay, cemented material or of rock NOTE: The seabed can be considered as the half-space below the sea floor. [ISO 19901-4:2003] |

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| seiche | 3.28 | ISO 19901-1 | oscillation of a body of water at its natural period |
| short-term distribution | 3.29 | ISO 19901-1 | probability distribution of a variable within a short interval of time during which conditions are assumed to be statistically constant NOTE: The interval chosen is most often the duration of a sea state. |
| significant wave height | 3.30 | ISO 19901-1 | statistical measure of the height of waves in a sea state NOTE: The significant wave height was originally defined as the mean height of the highest one-third of the zero up-crossing waves in a sea state. In most offshore data acquisition systems the significant wave height is currently taken as $\sqrt{m_0}$ (where m_0 is the zeroth spectral moment, see 3.31) or 4σ , where σ is the standard deviation of the time series of water surface elevation over the duration of the measurement, typically a period of approximately 30 minutes. |
| spectral density function energy density function spectrum | 3.33 | ISO 19901-1 | measure of the variance associated with a time varying variable per unit frequency band and per unit directional sector NOTE 1: Spectrum is a shorthand expression for the full and formal name of spectral density function or energy density function. NOTE 2: The spectral density function is the variance (the mean square) of the time varying variable concerned in each frequency band and directional sector. Therefore the spectrum is in general written with two arguments, one for the frequency variable and one for a direction variable. NOTE 3: Within this document the concept of a spectrum applies to waves, wind turbulence and action effects (responses) that are caused by waves or wind turbulence. For waves the spectrum is a measure of the energy traversing a given space. |
| spectral moment nth spectral moment | 3.31 | ISO 19901-1 | integral over frequency of the spectral density function multiplied by the nth power of the frequency, either expressed in Hz (cycles per second) as $\int_0^\infty f^n S(f) df$ or expressed in circular frequency (radians/second) as $\int_0^\infty \omega^n S(\omega) d\omega$ NOTE 1: As $\omega = 2\pi f$, the relationship between the two moment expressions is: $m_n(\omega) = (2\pi)^n m_n(f)$. NOTE 2: The integration extends over the entire frequency range from zero to infinity. In practice the integration is often truncated at a frequency beyond which the contribution to the integral is negligible and/or the sensor no longer responds accurately. |
| spectral peak period | 3.32 | ISO 19901-1 | period of the maximum (peak) energy density in the spectrum NOTE: In practice there is often more than one peak in a spectrum. |

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| squall | 3.34 | ISO 19901-1 | <p>strong wind event characterized by a sudden onset, a duration of the order of minutes and a rather sudden decrease in speed</p> <p>NOTE 1: A squall is often accompanied by a change in wind direction, a drop in air temperature and by heavy precipitation.</p> <p>NOTE 2: To be classed as a squall the wind speed would typically be greater than about 8 m/s and last for longer than 2 minutes (thereby distinguishing it from a gust).</p> |
| still water level | 3.35 | ISO 19901-1 | <p>abstract water level typically used for the calculation of wave kinematics for global actions and wave crest elevation for minimum deck elevations</p> <p>NOTE: Still water level is an engineering abstract calculated by adding the effects of tides and storm surge to the water depth but excluding variations due to waves (see Figure 1). It can be above or below mean sea level.</p> |
| storm surge | 3.36 | ISO 19901-1 | change in sea level (either positive or negative) that is due to meteorological (rather than tidal) forcing |
| sustained wind speed | 3.37 | ISO 19901-1 | time averaged wind speed with an averaging duration of ten minutes or longer |
| swell | 3.38 | ISO 19901-1 | sea state in which waves generated by winds remote from the site have travelled to the site, rather than being locally generated |
| tropical cyclone | 3.39 | ISO 19901-1 | <p>closed atmospheric or oceanic circulation around a zone of low pressure that originates over the tropical oceans</p> <p>NOTE 1: The circulation is counter-clockwise in the northern hemisphere and clockwise in the southern hemisphere.</p> <p>NOTE 2: At maturity, the tropical cyclone can be one of the most intense storms in the world, with wind speeds exceeding 90 m/s and accompanied by torrential rain.</p> <p>NOTE 3: In some areas, local terms for tropical cyclones are used. For example, tropical cyclones are typically referred to as hurricanes in the Gulf of Mexico and North Atlantic, while in the South China Sea and NW Pacific they are called typhoons. In the South Pacific and South Indian Ocean, however, they are commonly referred to as cyclones.</p> <p>NOTE 4: The term cyclone is also used to refer to a tropical storm with sustained wind speeds in excess of 32 m/s (Beaufort Force 12).</p> |
| tsunami | 3.40 | ISO 19901-1 | <p>long period sea waves caused by rapid vertical movements of the sea floor</p> <p>NOTE: The vertical movement of the sea floor is often associated with fault rupture during earthquakes or with seabed mud slides.</p> |

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| water depth | 3.41 | ISO 19901-1 | <p>vertical distance between the sea floor and still water level</p> <p>NOTE 1: As there are several options for the still water level (see 3.35) there can be several water depth values. Generally design water depth is determined to LAT or to mean sea level.</p> <p>NOTE 2: The water depth used for calculating wave kinematics varies between the maximum water depth of the highest astronomical tide plus a positive storm surge, and the minimum water depth of the lowest astronomical tide less a negative storm surge, where applicable. The same maximum and minimum water depths are applicable to bottom founded and floating structures, although water depth is usually a much less important parameter for floating structures. Water depth is, however, important for the design and analysis of the mooring system and risers for floating structures.</p> |
| wave spectrum | 3.42 | ISO 19901-1 | <p>measure of the amount of energy associated with the fluctuation of the sea surface elevation per unit frequency band and per unit directional sector</p> <p>NOTE 1: The wave frequency spectrum (integrated over all directions), is often described by use of some parametric form such as the Pierson-Moskowitz or JONSWAP wave spectrum.</p> <p>NOTE 2: The area under the wave spectrum is the zeroth spectral moment m_0, which is a measure of the total energy in the sea state; m_0 is used in contemporary definitions of the significant wave height.</p> |
| wave steepness | 3.43 | ISO 19901-1 | <p>a characteristic of individual waves calculated as wave height divided by wave length</p> <p>NOTE: For periodic waves the concept is straightforward as H / λ. For random waves the definition is used with the significant wave height (H_s) and the wave length that corresponds with the peak period (T_p) of the wave spectrum in deep water. The significant wave steepness is then defined as $H_s / \lambda_p = H_s / ((g/2) T_p^2)$ and is typically in the range of 1/16 to 1/20 for severe sea states.</p> |
| wind spectrum | 3.44 | ISO 19901-1 | <p>measure of the variance associated with the fluctuating wind speed per unit frequency band</p> <p>NOTE 1: The wind spectrum is an expression of the dynamic properties of the wind (turbulence). It reflects the fluctuations about and in the same direction as a certain mean wind speed, usually the one hour sustained wind speed. There is hence no direction variable associated with the wind spectrum within this document</p> <p>NOTE 2: As the sustained wind speed varies with elevation the wind spectrum is a function of elevation..</p> |
| abnormal earthquake level ALE | 3.1 | ISO 19901-2 | <p>intense earthquake of abnormal severity under the action of which the structure should not suffer complete loss of integrity</p> <p>NOTE: The ALE event is comparable to the abnormal event in the design of fixed structures in ISO 19902 and ISO 19903. When exposed to the ALE a manned structure should maintain structural and/or floatation integrity for a sufficient period of time to enable evacuation to take place.</p> |
| attenuation | 3.2 | ISO 19901-2 | decay of seismic waves as they travel from a source to the site under consideration |
| directional combination | 3.3 | ISO 19901-2 | combination of response values due to each of the three orthogonal components of an earthquake motion |

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| escape and evacuation systems | 3.4 | ISO 19901-2 | systems provided on a platform to facilitate escape and evacuation in an emergency NOTE: Escape and evacuation systems include passageways, chutes, ladders, life rafts and helidecks. |
| extreme earthquake level ELE | 3.5 | ISO 19901-2 | earthquake with a severity which the structure should sustain without major damage NOTE: The ELE event is comparable to the extreme environmental event in the design of fixed structures in ISO 19902 and ISO 19903. When exposed to an ELE a structure should retain its full capacity for all subsequent conditions. |
| fault movement | 3.6 | ISO 19901-2 | movement occurring on a fault during an earthquake |
| ground motions | 3.7 | ISO 19901-2 | accelerations, velocities or displacements of the ground produced by seismic waves radiating away from earthquake sources NOTE: A fixed offshore structure is founded in or on the seabed and consequently only seabed motions are of significance. The term ground motions is used rather than seabed motions for consistency of terminology with seismic design for onshore structures. |
| liquefaction | 3.8 | ISO 19901-2 | fluidity of cohesionless soil due to the increase in pore pressures caused by earthquake action under undrained conditions |
| modal combination | 3.9 | ISO 19901-2 | combination of response values associated with each dynamic mode of a structure |
| mud volcanoes | 3.10 | ISO 19901-2 | diapiric intrusion of plastic clay causing high pressure gas-water seepages which carry mud, fragments of rock (and occasionally oil) to the surface NOTE: The surface expression of a mud volcano is a cone of mud with continuous or intermittent gas escaping through the mud. |
| probabilistic seismic hazard analysis PSHA | 3.11 | ISO 19901-2 | framework permitting the identification, quantification and rational combination of uncertainties in earthquakes' intensity, location, rate of recurrence and variations in ground motion characteristics |
| response spectrum | 3.12 | ISO 19901-2 | plot representing structural response in terms of absolute acceleration, pseudo velocity, or relative displacement values against natural frequency or period |
| safety systems | 3.13 | ISO 19901-2 | systems provided on a platform to detect, control and mitigate hazardous situations NOTE: Safety systems include gas detection, emergency shutdown, fire protection, and their control systems. |
| sea floor | 3.14 | ISO 19901-2 | interface between the sea and the seabed |
| sea floor slide | 3.15 | ISO 19901-2 | failure of sea floor slopes |
| seabed | 3.16 | ISO 19901-2 | materials below the sea in which a structure is founded NOTE: The seabed can be considered as the half-space below the sea floor. |

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| seismic hazard curve | 3.18 | ISO 19901-2 | curve showing the probability of exceedance against a measure of seismic intensity NOTE: The seismic intensity measures can include parameters such as peak ground acceleration, spectral acceleration, or spectral velocity. |
| seismic reserve capacity factor | 3.19 | ISO 19901-2 | ratio of spectral acceleration which causes structural collapse or catastrophic system failure to the ELE spectral acceleration |
| seismic risk category SRC | 3.17 | ISO 19901-2 | category defined from the exposure level and the expected intensity of seismic motions |
| site response analysis | 3.20 | ISO 19901-2 | wave propagation analysis permitting the evaluation of the effect of local geological and soil conditions on the design ground motions at a given site NOTE: The site response analysis results can include amplitude, frequency content and duration. |
| spectral acceleration | 3.21 | ISO 19901-2 | maximum absolute acceleration response of a single degree of freedom oscillator subjected to ground motions due to an earthquake |
| spectral displacement | 3.23 | ISO 19901-2 | maximum relative displacement response of a single degree of freedom oscillator subjected to ground motions due to an earthquake |
| spectral velocity | 3.22 | ISO 19901-2 | maximum pseudo velocity response of a single degree of freedom oscillator subjected to ground motions due to an earthquake |
| static pushover method static pushover analysis | 3.24 | ISO 19901-2 | application and incremental increase of a global static pattern of actions on a structure, including equivalent dynamic inertial actions, until a global failure mechanism occurs |
| tsunami | 3.25 | ISO 19901-2 | long period sea waves caused by rapid vertical movements of the sea floor NOTE: The vertical movement of the sea floor is often associated with fault rupture during earthquakes or with seabed mud slides. |
| abnormal value | 3.1 | ISO 19901-3 | value of a parameter of abnormal severity used in accidental limit state checks in which a structure should not suffer complete loss of integrity NOTE 1: Abnormal design situations are used to provide robustness against events with a probability of exceedance of typically between 10^{-3} and 10^{-4} per annum by avoiding, for example, gross overloading NOTE 2: Abnormal values and events have probabilities of exceedance of the order of 10^{-3} to 10^{-4} per annum. In the limit state checks, some or all of the partial factors are set to 1,0. [ISO 19901 1:2002] |

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| consequence category | 3.10 | ISO 19901-3 | classification system for identifying the environmental, economic and indirect personnel safety consequences of failure of a platform NOTE: Categories for environmental and economic consequences are (see 6.6.3): C1: high environmental and/or economic consequence C2: medium environmental and/or economic consequence C3: low environmental and economic consequence [ISO 19902:2007] |
| critical component | 3.11 | ISO 19901-3 | structural component, failure of which would cause failure of the whole structure, or a significant part of it NOTE: A critical component is part of the primary structure. [ISO 19902:2007] |
| design accidental action | 3.12 | ISO 19901-3 | accidental action with a probability of occurrence greater than 10^{-3} to 10^{-4} per year |
| design criteria | 3.13 | ISO 19901-3 | quantitative formulations that describe the conditions to be fulfilled for each limit state [ISO 19900:2002] |
| design service life | 3.14 | ISO 19901-3 | assumed period for which a structure is to be used for its intended purpose with anticipated maintenance, but without substantial repair being necessary [ISO 19900:2002] |
| design situation | 3.15 | ISO 19901-3 | set of physical conditions representing real conditions during a certain time interval for which the design will demonstrate that relevant limit states are not exceeded [ISO 19900:2002] |
| design value | 3.16 | ISO 19901-3 | value derived from the representative value for use in the design verification procedure [ISO 19900:2002] |
| dimensioning action | 3.17 | ISO 19901-3 | action resulting from identified accidental events with a combined probability of exceedance for each category of hazard greater than 10^{-4} per year that can entail unacceptable loss or other consequences that is used to provide an initial determination of the required resistance of a component NOTE: The use of dimensioning actions does not necessarily involve providing additional structural strength. Local permanent deformation or partial collapse during an accidental event can be acceptable provided there is no disproportionate collapse, overall structural failure or unacceptable effects to limit the performance of safety-critical plant and equipment. |

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| explosion | 3.18 | ISO 19901-3 | rapid chemical reaction of gas or dust in air NOTE: An explosion results in increased temperatures and pressure impulses. A gas explosion on an offshore platform is usually a deflagration in which flame speeds remain subsonic. [ISO 19902:2007] |
| exposure level | 3.19 | ISO 19901-3 | classification system used to define the requirements for a structure based on consideration of life safety and of environmental and economic consequences of failure NOTE: The method for determining exposure levels are described in ISO 19902. An exposure level 1 platform is the most critical and exposure level 3 the least. A normally manned platform which cannot be reliably evacuated before a design event will be an exposure level 1 platform. [ISO 19900:2002] |
| accidental event | 3.2 | ISO 19901-3 | event with a low probability of occurrence (but greater than 10^{-3} to 10^{-4} per year) that will require to be considered in design (a accidental design situation). |
| extreme value | 3.20 | ISO 19901-3 | value of a parameter used in ultimate limit state checks, in which a structure's global behaviour is intended to stay in the elastic range NOTE: Extreme values and events have probabilities of exceedance of the order of 10^{-2} per annum. [ISO 19901 1:2002] |
| life-safety category | 3.21 | ISO 19901-3 | classification system for identifying the applicable level of life-safety for a platform NOTE: Categories for life-safety are (see 6.6.2): S1: manned non-evacuated S2: manned evacuated S3: unmanned [ISO 19902:2007] |
| load arrangement | 3.22 | ISO 19901-3 | identification of the position, magnitude and direction of a free action [ISO 19902:2007] |
| load case | 3.23 | ISO 19901-3 | compatible load arrangements, sets of deformations and imperfections considered simultaneously with permanent actions and fixed variable actions for a particular design or verification [ISO 19902:2007] |
| mitigation | 3.24 | ISO 19901-3 | action taken to reduce the consequences of a hazardous event NOTE: Examples of mitigation measures include provision of fire or blast walls, use of water deluge on gas detection, structural strengthening. |

| Term | Ref | Standard | Definition |
|-------------------------------|------|-------------|---|
| nominal value | 3.25 | ISO 19901-3 | value assigned to a basic variable determined on a non-statistical basis, typically from acquired experience or physical conditions [ISO 19900:2002] |
| owner | 3.26 | ISO 19901-3 | representative of the companies which own a development NOTE: The owner will normally be the operator on behalf of co-licensees. [ISO 19902:2007] |
| passive fire protection (PFP) | 3.27 | ISO 19901-3 | coating on the surface of a structural component that improves the structural component's resistance to fire NOTE: Some PFP can produce toxic fumes in fires. |
| platform | 3.28 | ISO 19901-3 | complete assembly including structure, topside(s) and, where applicable, foundations [ISO 19900:2002] |
| accidental design situation | 3.3 | ISO 19901-3 | design situation involving exceptional conditions of the structure or its exposure EXAMPLES: Accidental situations include impact, fire, explosion, local failure or loss of intended differential pressure (e.g. buoyancy). [ISO 19902:2007] |
| regulator | 3.30 | ISO 19901-3 | authority established by a national governmental administration to oversee the activities of the offshore oil and natural gas industries within its jurisdiction, with respect to the overall safety to life and protection of the environment NOTE 1: The term regulator can encompass more than one agency in any particular territorial waters. NOTE 2: The regulator can appoint other agencies, such as marine classification societies, to act on its behalf, and in such cases the term regulator within this document includes such agencies. NOTE 3: Within this document the term regulator does not include any agency responsible for approvals to extract hydrocarbons, unless such agency also has responsibility for safety and environmental protection. [ISO 19902:2007] |
| representative value | 3.31 | ISO 19901-3 | value assigned to a basic variable for verification of a limit state [ISO 19900:2002] |
| residual accidental event | 3.32 | ISO 19901-3 | accidental event with a probability of occurrence of less than 10 ⁻³ to 10 ⁻⁴ per year |

| Term | Ref | Standard | Definition |
|-------------------------------|------|-------------|---|
| return period | 3.33 | ISO 19901-3 | average period between occurrences of an event or of a particular value being exceeded NOTE: The offshore industry commonly uses a return period measured in years for environmental events. The return period in years is equal to the reciprocal of the annual probability of exceedance of the event. [ISO 19901 1:2005] |
| riser | 3.34 | ISO 19901-3 | tubular used for the transport of fluids between the sea floor and a termination point on the platform NOTE 1: For a fixed structure the termination point is usually the topside(s). For floating structures the riser may terminate at other locations of the platform. NOTE 2: A riser can be supported both laterally and vertically in the topsides structure and transmit actions from thermal effects, wave action, permanent and variable and variations in fluid flow to the topsides structure. [ISO 19900:2002] |
| robustness | 3.35 | ISO 19901-3 | ability of a structure to withstand events with a reasonable likelihood of occurring without being damaged to an extent disproportionate to the cause [ISO 19902:2007] |
| safety-critical element | 3.36 | ISO 19901-3 | item of structure, piping or equipment provided to prevent and mitigate against major accidents |
| structural component | 3.37 | ISO 19901-3 | physically distinguishable part of a structure EXAMPLE: Column, beam, stiffened plate, tubular joint, or foundation pile. [ISO 19902:2007] |
| support structure | 3.38 | ISO 19901-3 | structure supporting the topsides NOTE: The support structure can take many forms including fixed steel, see ISO 19902, fixed concrete, see ISO 19903, floating, see ISO 19904 1, mobile offshore units, see ISO 19905 1, or the various forms of arctic structures, see ISO 19906. [ISO 19902:2007] |
| after damage design situation | 3.4 | ISO 19901-3 | design situation for which the condition of the structure reflects damage due to an accidental design situation and for which the environmental conditions are specially defined [ISO 19902:2007] |
| topside(s) | 3.40 | ISO 19901-3 | unit(s) comprising structures and equipment placed on a support structure (fixed or floating) to provide some or all of a platform's functions NOTE 1: For a ship-shaped floating structure the deck is not part of the topside(s). NOTE 2: For a jack-up the hull is not part of the topside(s). NOTE 3: A separate fabricated deck or module support frame is part of the topside(s). [ISO 19900:2002] |

| Term | Ref | Standard | Definition |
|---------------------------|------|-------------|--|
| walk-down | 3.42 | ISO 19901-3 | survey of the platform undertaken by suitably qualified and experienced engineers looking for features of the platform which, while they are in accordance with the design, constitute a lack of robustness in particular conditions, such as seismic conditions |
| active fire protection | 3.5 | ISO 19901-3 | system of fire protection that reacts to a fire by discharging water or an inert or reactive substance in the vicinity of the fire to extinguish it NOTE: There is a possibility that such a system fails to operate as designed. |
| basic variable | 3.6 | ISO 19901-3 | one of a specified set of variables representing physical quantities which characterise actions, environmental influences, geometrical quantities, or material properties including soil properties [ISO 19900:2002] |
| caisson | 3.7 | ISO 19901-3 | appurtenance used for abstracting water from the sea or as a drain |
| characteristic value | 3.8 | ISO 19901-3 | value assigned to a basic variable associated with a prescribed probability of not being violated by unfavourable values during some reference period NOTE: The characteristic value is the main representative value. In some design situations a variable can have two characteristic values, an upper and a lower value. [ISO 19900:2002] |
| conductor | 3.9 | ISO 19901-3 | tubular pipe extending upward from the sea floor or below containing pipes that extend into the petroleum reservoir NOTE 1: A conductor is generally vertical and is continuous from below the seabed to the wellbay in the topsides and can be laterally supported in both the support structure and topsides structure. The vertical support is at the seabed. NOTE 2: In a few cases conductors are rigidly attached to the topsides or to the support structure above sea level, in these cases the conductor's axial stiffness can affect the load distribution within the overall structure. [ISO 19900:2002] |
| design actions | 3.1 | ISO 19901-4 | combination of representative actions and partial safety factors representing a design situation for use in checking the acceptability of a design |
| drained condition | 3.2 | ISO 19901-4 | condition whereby the applied stresses and stress changes are supported by the soil skeleton and do not cause a change in pore pressure |
| effective foundation area | 3.3 | ISO 19901-4 | reduced foundation area having its geometric centre at the point where the resultant action vector intersects the foundation base level |
| material factor | 3.4 | ISO 19901-4 | partial safety factor applied to the strength of the soil |
| sea floor | 3.5 | ISO 19901-4 | interface between the sea and the seabed |

| Term | Ref | Standard | Definition |
|--------------------------|--------|-------------|--|
| seabed | 3.6 | ISO 19901-4 | materials below the sea in which a structure is founded, whether of soils such as sand, silt or clay, cemented materials or of rock NOTE 1: The seabed can be considered as the half-space below the sea floor. NOTE 2: Offshore foundations are most commonly installed in soils, and the terminology in this part of ISO 19901 reflects this. However, the requirements equally apply to cemented seabed materials and rocks. Thus, the term "soil" does not exclude any other material at or below the sea floor. NOTE 3: As yet there are no universally accepted definitions of the various types of soil and rock, see 6.4.3 under A.2. |
| settlement | 3.7 | ISO 19901-4 | permanent downward movement of a structure as a result of its own weight and other actions |
| undrained condition | 3.8 | ISO 19901-4 | condition whereby the applied stresses and stress changes are supported by both the soil skeleton and the pore fluid and do not cause a change in volume |
| undrained shear strength | 3.9 | ISO 19901-4 | maximum shear stress at yielding or at a specified maximum strain in an undrained NOTE: Yielding is the condition of a material in which a large plastic strain occurs at little or no stress increase.condition |
| 50/50 weight estimate | 3.1.54 | ISO 19901-5 | value representing the median value in the probability distribution of weight estimates NOTE The actual weight value is equally likely to be smaller or larger than the 50/50 weight estimate. NOTE The 50/50 weight estimate is used as the basis for weight budgeting. |
| Assembly | 3.1.1 | ISO 19901-5 | designed and fabricated group of bulk and equipment items which form one unit |
| ballast | 3.1.2 | ISO 19901-5 | variable solid or fluid content used to trim a floating structure and/or keep a certain draft |
| base weight contingency | 3.1.4 | ISO 19901-5 | weight addition, based on risk analysis or experience, used to transform a base weight estimate into a 50/50 weight estimate accounting for uncertainties |
| base weight estimate | 3.1.3 | ISO 19901-5 | weight estimate used for budgeting purposes which does not include any unforeseen quantity growth, estimating errors or unnamed events |
| budget weight | 3.1.5 | ISO 19901-5 | weight reference figures as defined in the weight and load budget and related to the initial or changed design concept |
| bulk | 3.1.6 | ISO 19901-5 | component or arrangement of components defined as stock materials or of low complexity NOTE Bulk items support the equipment items by providing infrastructure around and between them. |
| client weight reserve | 3.1.7 | ISO 19901-5 | weight addition with CoG (usually a fixed weight) controlled by the client and used to cater for any orders for variation to the contractual design concept |
| CoG envelope | 3.1.8 | ISO 19901-5 | defined constraint volume within which the CoG of an assembly must remain for design purposes |

| Term | Ref | Standard | Definition |
|---------------------------------|--------|-------------|--|
| consumables | 3.1.9 | ISO 19901-5 | variable content, which is solid in stores and fluid in utility tanks EXAMPLES Fuel, provisions, service/potable water, operating utilities. |
| contractor weight reserve | 3.1.10 | ISO 19901-5 | weight addition (usually a fixed weight) controlled by the contractor and used to cater for any design growth due to development of the initial design concept |
| deadweight | 3.1.11 | ISO 19901-5 | total carrying capacity of a floating structure NOTE Includes weight of crude oil, deck cargo, temporaries, snow and ice, marine growth, ballast water, consumables, crew and their effects. |
| displacement | 3.1.12 | ISO 19901-5 | weight of the volume of water displaced by a floating structure, which is the sum of lightweight and deadweight |
| dry weight | 3.1.13 | ISO 19901-5 | weight of a component, weight item or an assembly in its dry installed condition including permanent utilities NOTE 1 Examples of permanent utilities are gearbox oil, hydraulic oil, filter sand, etc. NOTE 2 Any content of operating fluid flowing through a component, weight item or an assembly is excluded. |
| equipment | 3.1.14 | ISO 19901-5 | component, or arrangement of components, built for specific function(s) NOTE The component/assembly normally has unique documentation due to its function and complexity. |
| first fill | 3.1.15 | ISO 19901-5 | initial filling of liquid in equipment items, piping lines or tanks NOTE First fill typically takes place towards the end of site construction, prior to tow-out and prior to filling for normal operations. |
| float-out | 3.1.16 | ISO 19901-5 | loading condition in which a major assembly is transferred from a dry construction site to become self-floating |
| fluid content | 3.1.17 | ISO 19901-5 | all fluids flowing through a component, weight item or an assembly EXAMPLES Process gases, liquids, powders, etc. |
| future weight | 3.1.18 | ISO 19901-5 | weight of a component or an assembly to be installed after the start of production NOTE Start of production is also known as "first oil". |
| grillage | 3.1.19 | ISO 19901-5 | temporary structural foundation assemblies for modules or sections during transportation |
| gross reported weight | 3.1.20 | ISO 19901-5 | sum of the net weight and weight allowance |
| gross weight/WTO contingency | 3.1.22 | ISO 19901-5 | difference between the gross reported weight and the gross WTO at any time during the project execution |
| gross WTO gross weight take-off | 3.1.21 | ISO 19901-5 | sum of the net WTO and weight allowance |
| hook weight | 3.1.24 | ISO 19901-5 | sum of lift weight and lifting gear weight |

| Term | Ref | Standard | Definition |
|--|------------|-----------------|--|
| hook-up | 3.1.23 | ISO 19901-5 | installation and commissioning of components or assemblies after the modules have been installed in their final position |
| lift weight | 3.1.26 | ISO 19901-5 | weight of a component, an assembly or a module at padeyes, including temporaries and residual fluid content but excluding lifting gear |
| lifting gear rigging | 3.1.25 | ISO 19901-5 | equipment needed during a lifting operation EXAMPLES Slings, spreader bars, lifting frames, shackles, etc. |
| Lightweight lightship | 3.1.27 | ISO 19901-5 | dry weight and utility systems required for a minimum operation of a floating structure |
| live load | 3.1.28 | ISO 19901-5 | load on a deck area according to its defined function |
| loading condition | 3.1.29 | ISO 19901-5 | defined event or operation during which loads occur NOTE For each loading condition, all weight items and variable loads that are known or predicted to occur are identified, quantified and located. |
| load-out | 3.1.30 | ISO 19901-5 | loading condition in which a major assembly or a module is transferred from land onto a floating structure by horizontal movement |
| mating | 3.1.31 | ISO 19901-5 | loading condition in which a major assembly supported on vessel(s) is joined onto its temporary or permanent substructure |
| net weight | 3.1.32 | ISO 19901-5 | weight (excluding any allowances or contingencies) obtained either by estimation as estimated from early design documents or present sketches, calculated take-off from drawings or 3D model, or as given in vendor data-sheets or obtained by physical weighing |
| net WTO net weight take-off | 3.1.33 | ISO 19901-5 | weight derived from calculated take-off or from 3D model, given in vendor data-sheets or weighed, excluding any allowances or contingencies |
| not-to-exceed weight [load] NTE weight [load] | 3.1.34 | ISO 19901-5 | maximum acceptable weight [load] |
| operating weight | 3.1.35 | ISO 19901-5 | sum of the dry weight and the fluid content weight |
| project management | 3.1.36 | ISO 19901-5 | dedicated management personnel with the task of implementing weight policy, objectives and procedures |
| residual fluid content | 3.1.37 | ISO 19901-5 | fluid content remaining after testing or commissioning and present during the subsequent loading condition until the start of production |
| sea fastening | 3.1.38 | ISO 19901-5 | items used for temporary fastening to keep movable items in position during transportation at sea |

| Term | Ref | Standard | Definition |
|--------------------------|------------|-----------------|---|
| tagged equipment | 3.1.39 | ISO 19901-5 | equipment tagged in accordance with the project coding manual |
| temporaries, noun pl | 3.1.40 | ISO 19901-5 | components, assemblies or utility items which are temporarily installed during a specific loading condition and removed afterwards, either prior to or after installation |
| test weight | 3.1.41 | ISO 19901-5 | sum of the dry weight plus the fluid content required to test the equipment and assembly |
| tow-out | 3.1.42 | ISO 19901-5 | final towing of a complete floating structure to the offshore production field |
| transport | 3.1.43 | ISO 19901-5 | loading condition in which a major assembly or a module is transferred from one inshore/atshore location to another location or to the offshore production field |
| weight allowance | 3.1.44 | ISO 19901-5 | quantified weight addition accounting for definable components which could not be specified at the actual project stage NOTE Weight allowance is expressed either as a percentage or as a lump sum. |
| weight contingency | 3.1.45 | ISO 19901-5 | weight addition, based on risk analysis or experience, used to transform a base weight estimate to a 50/50 weight estimate accounting for uncertainties and/or definable components which could not be specified at the actual project stage NOTE Weight contingency is expressed either as a percentage or as a lump sum. |
| weight installation code | 3.1.47 | ISO 19901-5 | code which verifies whether a component or a weight item is physically installed or not in an assembly or module |
| weight item | 3.1.46 | ISO 19901-5 | defined collection of bulk and/or equipment, design volume or assembly suitable for weight reporting purposes |
| weight management | 3.1.48 | ISO 19901-5 | all planned and controlled activities which deal with the - definition and publication of the project weight objective and policy, - identification of, information about and evaluation of alternative design solutions, - selection and implementation of an optimal design with respect to weight, CoG, volume, functionality, cost and progress. NOTE The project management, the engineering disciplines and the weight control discipline are actively cooperating and taking part in and influencing the weight management process by means of adequate working methods and tools, to include weight optimization, weight consciousness and weight reductions. |
| weight objective | 3.1.49 | ISO 19901-5 | defined set of engineering goals necessary to fulfil the project contractual weight/CoG requirements and intentions in order to contribute to the correct design quality as defined by the management |
| weight phase code | 3.1.50 | ISO 19901-5 | computer code defining in which loading conditions a component or a weight item is present |

| Term | Ref | Standard | Definition |
|-----------------------|--------|-------------|---|
| weight policy | 3.1.51 | ISO 19901-5 | statement by the project management based on the weight objective and how it will be achieved NOTE The statement should as a minimum describe - the weight objective's importance to the project aims and results, - the priority, profile and control at different levels in the project, - a philosophy for responsibility and authority within and between project groups engaged in weight/CoG matters. |
| weight reporting | 3.1.52 | ISO 19901-5 | adequate and timely weight/CoG information reported with respect to content and presentation in order to fulfil expectations and requirements from/needs of organizations involved in the project |
| weight status code | 3.1.53 | ISO 19901-5 | computer code related to the weight item level of accuracy |
| 50/50 weight estimate | 3.107 | ISO 19901-6 | value representing the median value in the probability distribution of weight estimates NOTE 1 The actual weight is equally likely to be smaller or larger than the 50/50 weight estimate. NOTE 2 The 50/50 weight estimate is used as the basis for weight budgeting. [ISO 19901-5: 2003] |
| action | 3.1 | ISO 19901-6 | external load applied to the structure (direct action) or an imposed deformation or acceleration (indirect action) EXAMPLE An imposed deformation can be caused by fabrication tolerances, settlement, temperature change or moisture variation. NOTE An earthquake typically generates imposed accelerations. [ISO 19900:2002] |
| action effect | 3.2 | ISO 19901-6 | effect of actions on structural components EXAMPLE Internal forces, moments, stresses, strains, rigid body motions or elastic deformations. [ISO 19904-1:2006] |
| air cushion | 3.3 | ISO 19901-6 | air pumped into underbase compartments of the structure NOTE Normally applied in order to reduce the draught and increase the freeboard and/or to alter the structural loading. [ISO 19903:2006] |
| assembly | 3.4 | ISO 19901-6 | designed and fabricated group of bulk and equipment items that form one unit [ISO 19901-5:2003] |
| ballast | 3.5 | ISO 19901-6 | variable solid or fluid content in order to change the draught, stability, trim and/or heel of a structure afloat NOTE Adapted from ISO 19901-5:2003, definition 3.1.2. |
| ballast system | 3.6 | ISO 19901-6 | system used to change the draught, stability, trim and/or heel of a structure afloat |

| Term | Ref | Standard | Definition |
|---------------------------|------------|-----------------|---|
| barge | 3.7 | ISO 19901-6 | simple floating vessel, normally non-propelled, on which a structure is transported |
| basic variable | 3.8 | ISO 19901-6 | one of a specified set of variables representing physical conditions that characterize actions, environmental influences, geometrical quantities or material properties, including soil properties [ISO 19900:2002] |
| bending efficiency factor | 3.9 | ISO 19901-6 | factor by which the calculated breaking strength of a rope is reduced to take account of the reduction in strength caused by bending around a shackle, trunnion, padear or crane hook |
| bollard pull | 3.10 | ISO 19901-6 | towing or manoeuvring action that can be generated by a tug for an indefinite period of time with its propulsion system running at operational, as opposed to maximum NOTE Bollard pull is expressed in units of revolutions per minute (r/min). |
| bridging document | 3.11 | ISO 19901-6 | document that aligns and co-ordinates the requirements and responses of various parties in relation to a specific aspect of a project NOTE Commonly used to align and co-ordinate the emergency response procedures for owner and contractors. |
| bumpers | 3.12 | ISO 19901-6 | temporary structures designed to protect structures or modules during the initial fitting stage of an installation operation |
| characteristic value | 3.13 | ISO 19901-6 | value assigned to a basic variable associated with a prescribed probability of not being violated by unfavourable values during some reference period NOTE The characteristic value is the main representative value. In some design situations, a variable can have two characteristic values, an upper and a lower value. [ISO 19900:2002] |
| CoG envelope | 3.14 | ISO 19901-6 | defined constraint volume within which the centre of gravity (CoG) of an assembly or a module shall remain NOTE Adapted from ISO 19901-5:2003, definition 3.1.8. |
| consequence factor | 3.15 | ISO 19901-6 | factor applied to critical structural components in the design of lifting operations to ensure that these components have an increased factor of safety in relation to the consequence of their failure NOTE Consequence factors are additional safety factors, applied to critical structural components of the lifted object over and above the normal safety factors used in a WSD analysis of the lifted object. They are, accordingly, applied to lift points, their attachments to the object and components in the object supporting lift points. They are not intended for application to slings, grommets and shackles. |
| construction afloat | 3.16 | ISO 19901-6 | addition of material or outfitting to the structure while afloat NOTE Adapted from ISO 19903:2006, definition 3.17. |

| Term | Ref | Standard | Definition |
|------------------|------------|-----------------|---|
| crane vessel | 3.17 | ISO 19901-6 | vessel, ship or barge on which lifting equipment is mounted NOTE For the purpose of this document, this term includes crane barges, crane ships, derrick barges, shear-leg barges and semi-submersible crane vessels. |
| cribbing | 3.18 | ISO 19901-6 | arrangement of timber baulks, secured to the deck of the barge or vessel, designed to support the cargo NOTE Cribbing is generally arranged at strong points of the deck and/or cargo. |
| deadweight | 3.19 | ISO 19901-6 | total carrying capacity of a floating structure NOTE 1 This includes cargo weight, deck cargo, snow and ice, marine growth, ballast water, consumables and crew onboard a floating unit. NOTE 2 Adapted from ISO 19901-5:2003, definition 3.1.11. |
| deck mating | 3.20 | ISO 19901-6 | marine operation in which the platform topsides is floated into position and connected to the support structure NOTE This operation is normally conducted by ballasting and deballasting of the support structure. [ISO 19903:2006] |
| decommissioning | 3.21 | ISO 19901-6 | process of shutting down a platform and removing hazardous materials at the end of its production life [ISO 19900:2002] |
| design criteria | 3.22 | ISO 19901-6 | quantitative formulations that describe the conditions to be fulfilled for each limit state [ISO 19900:2002] |
| design situation | 3.23 | ISO 19901-6 | set of physical conditions representing potential conditions during a certain time interval for which the design demonstrates that relevant limit states are not exceeded NOTE Adapted from ISO 19900:2002, definition 2.13. |
| design value | 3.24 | ISO 19901-6 | value derived from the representative value for use in the design verification procedure [ISO 19900:2002] |
| determinate lift | 3.25 | ISO 19901-6 | lift where the slinging arrangement is such that the sling forces are statically determinate and not significantly affected by minor differences in sling length or elasticity |
| displacement | 3.26 | ISO 19901-6 | mass of the volume of water displaced by a floating structure NOTE 1 The mass of the water displaced is the sum of the lightship mass, deadweight and mooring system load including vertical component of the mooring pre-tension and/or riser action. NOTE 2 Adapted from ISO 19901-5:2003, definition 3.1.12. |
| dunnage | 3.27 | ISO 19901-6 | arrangement of timber on deck of a barge or vessel laid out to support the cargo |

| Term | Ref | Standard | Definition |
|-------------------------------------|------|-------------|--|
| dynamic action | 3.28 | ISO 19901-6 | action that induces acceleration of a structure or a structural component of a magnitude sufficient to require specific consideration [ISO 19901-7:2005] |
| dynamic amplification factor DAF | 3.29 | ISO 19901-6 | ratio of a dynamic action effect to the corresponding static action effect NOTE An appropriately selected dynamic amplification factor can be applied to static actions to simulate the effects of dynamic actions. [ISO 19902:2007] |
| fibre rope | 3.30 | ISO 19901-6 | rope made of various yarns and various types of construction EXAMPLE A fibre rope can be a stranded rope consisting of three to eight strands, a parallel strand rope, a single or double-braided rope, etc. NOTE Each combination of yarn and type of construction normally results in different properties and characteristics. |
| fibre rope grommet FRG | 3.31 | ISO 19901-6 | endless loop-shaped sling made up from a single length of fibre rope NOTE A fibre rope grommet is of similar construction to a steel wire rope grommet. |
| fibre rope sling FRS | 3.32 | ISO 19901-6 | sling made from a single fibre rope, usually with spliced eye end terminations |
| fixed structure | 3.33 | ISO 19901-6 | structure that is bottom founded and transfers all actions on it to the seabed [ISO 19900:2002] |
| float-off | 3.34 | ISO 19901-6 | offloading an object from a submersible transport vessel or barge by means of submerging the vessel or barge deck to a depth that is sufficient to allow the object to float and be removed from the vessel/barge |
| float-on | 3.35 | ISO 19901-6 | loading an object onto a submersible transport vessel or barge by means of submerging the vessel or barge deck to a depth that is sufficient to allow the floating object to be manoeuvred into position over the vessel/barge NOTE The object is then lifted from the water and onto the vessel/barge deck by deballasting the vessel/barge to its seagoing condition. |
| float-out | 3.36 | ISO 19901-6 | transfer of a floating structure out of a flooded dry dock NOTE Adapted from ISO 19903:2006, definition 3.28. |
| float-over | 3.37 | ISO 19901-6 | transfer of a major assembly supported on barge(s) on to its temporary or permanent structure by means of manoeuvring the major assembly over the structure and setting it down by means of ballasting the barge(s) supporting the assembly, deballasting the structure or lowering the supports of this assembly or combination thereof |

| Term | Ref | Standard | Definition |
|--------------------|------|-------------|---|
| grillage | 3.38 | ISO 19901-6 | steel structure, secured to the deck of a barge or vessel, designed to support the cargo and distribute the loads between the cargo and the barge or vessel NOTE Adapted from ISO 19901-5:2003, definition 3.1.19. |
| grommet | 3.39 | ISO 19901-6 | endless loop-shaped sling made up from a single length of (fibre or steel wire) rope See also fibre rope grommet (3.31) and steel wire rope grommet (3.89). |
| gross weight | 3.40 | ISO 19901-6 | calculated or weighed weight of the structure being lifted, including a weight contingency factor NOTE Sometimes the gross weight is referred to as a not-to-exceed (NTE) weight. |
| heave compensation | 3.41 | ISO 19901-6 | system fitted to hoisting/lowering machinery on offshore construction vessels to enable the object being hoisted or lowered to maintain a constant vertical position when the vessel is oscillating in a vertical direction |
| hook load | 3.42 | ISO 19901-6 | sum of the rigging weight, including the DAF, and the lift weight |
| indeterminate lift | 3.43 | ISO 19901-6 | any lift where the sling forces are not statically determinate |
| launching | 3.44 | ISO 19901-6 | offloading an object into the water from a barge or other floating unit by means of sliding the object longitudinally, or less commonly, sideways along the floating unit |
| lift point | 3.45 | ISO 19901-6 | connection between the rigging and the structure being lifted NOTE Lift points include padears, padeyes and trunnions. |
| lift weight | 3.46 | ISO 19901-6 | gross weight times the DAF |
| lightship weight | 3.47 | ISO 19901-6 | dry and invariable weight of a floating unit NOTE Adapted from ISO 19901-5:2003, definition 3.1.27. |
| limit state | 3.48 | ISO 19901-6 | state beyond which the structure no longer fulfils the relevant design criteria [ISO 19900:2002] |
| link beam | 3.49 | ISO 19901-6 | connecting beam between the quay and the barge NOTE It can provide a structural connection, or can solely provide a smooth path for skidding or trailers. |
| load case | 3.50 | ISO 19901-6 | compatible load arrangements, sets of deformations and imperfections considered simultaneously with permanent actions and fixed variable actions for a particular design or verification [ISO 19902:2007] |

| Term | Ref | Standard | Definition |
|------------------------------------|------|-------------|---|
| loadout | 3.51 | ISO 19901-6 | transfer of a major assembly or a module from land onto a barge or vessel by horizontal movement or by lifting NOTE 1 Types of loadout operation can be distinguished as follows: - floating: loadout from the quay onto a floating barge; - grounded: loadout from the quay onto a grounded barge; - lifted: loadout performed by crane; - skidded: loadout where the structure is skidded, using a combination of skidways, skidshoes or runners, propelled by towing engines, jacks or winches; - trailer: loadout where the structure is wheeled onto the barge using trailers or SPMTs. NOTE 2 Adapted from ISO 19901-5:2003, definition 3.1.30. |
| marine operation | 3.52 | ISO 19901-6 | planned and controlled vertical or horizontal movement of a structure or component thereof over, in or on water [ISO 19903:2006] |
| marine spread | 3.53 | ISO 19901-6 | fleet of vessels assembled to perform a marine operation |
| mating | 3.54 | ISO 19901-6 | transfer of a major assembly supported on barge(s) or vessel(s) to a temporary or permanent support structure NOTE 1 The following types of mating operation can be distinguished: - afloat transfer of the barge supported major assembly to a floating structure by means of submerging the structure sufficiently to allow the assembly to be manoeuvred over it, then lifting the assembly off the barges by deballasting the structure; - onto fixed structure transfer of the barge supported major assembly to a fixed structure by means of manoeuvring it over the structure, then ballasting the barge supporting the assembly or lowering the supports of this assembly in order to transfer the weight of the assembly onto the structure. NOTE 2 Adapted from ISO 19901-5:2003, definition 3.1.31. |
| minimum breaking strength MBS | 3.55 | ISO 19901-6 | certified strength of a chain, wire rope, fibre rope or accessories NOTE Adapted from ISO 19901-7:2005, definition 3.15. |
| mooring components | 3.56 | ISO 19901-6 | general class of components used in the mooring of floating structures EXAMPLE Chain, steel wire rope, synthetic fibre rope, clump weight, buoy, winch/windlass or anchor. |
| nominal value | 3.57 | ISO 19901-6 | value assigned to a basic variable determined on a non-statistical basis, typically from acquired experience or physical conditions [ISO 19900:2002] |
| not-to-exceed weight NTE weight | 3.58 | ISO 19901-6 | maximum acceptable weight of the structure, with an associated limiting CoG envelope NOTE Adapted from ISO 19901-5:2003, definition 3.1.34. |

| Term | Ref | Standard | Definition |
|---|------------|-----------------|--|
| offload | 3.59 | ISO 19901-6 | transfer of a major assembly or a module from a barge or transport vessel to land or to a self-floating condition by horizontal movement or by lifting |
| operational duration | 3.60 | ISO 19901-6 | planned duration of a marine operation, which includes a contingency time |
| owner | 3.61 | ISO 19901-6 | representative of the company or companies which own a development, who can be the operator on behalf of co-licensees [ISO 19901-7:2005] |
| padear | 3.62 | ISO 19901-6 | lift point consisting of a central member of tubular or flat plate form with horizontal trunnion, or consisting of a solid casting, around which a sling or grommet can be passed |
| padeye | 3.63 | ISO 19901-6 | lift point consisting essentially of a plate, reinforced by cheek plates if necessary, with a hole through which a shackle can be connected |
| platform | 3.64 | ISO 19901-6 | complete assembly including structure, topsides and, where applicable, foundations [ISO 19900:2002] |
| point of no return PNR | 3.65 | ISO 19901-6 | point during an operation that represents the final opportunity to reverse, delay or abandon the operation |
| recognized classification society RCS | 3.66 | ISO 19901-6 | member of the international association of classification societies (IACS), with recognized and relevant competence and experience in floating structures for marine operations, and with established rules and procedures for classification/certification of installations used in petroleum or natural gas activities NOTE Adapted from ISO 19904-1:2006, definition 3.29. |
| representative value | 3.67 | ISO 19901-6 | value assigned to a basic variable for verification of a limit state [ISO 19900:2002] |
| reserve buoyancy | 3.68 | ISO 19901-6 | contingency buoyancy expressed in percentage of the nominal total intact buoyancy of self-floating steel structures |
| resistance | 3.69 | ISO 19901-6 | capacity of a structure, component or a cross-section of a component to withstand action effects without exceeding a limit state [ISO 19904-1:2006] |
| return period | 3.70 | ISO 19901-6 | average period between occurrences of an event or of a particular value being exceeded NOTE The offshore industry commonly uses a return period measured in years for environmental events. The return period in years is equal to the reciprocal of the annual probability of exceedance of the event. [ISO 19901-1:2005] |

| Term | Ref | Standard | Definition |
|-------------------------|------|-------------|--|
| rigging | 3.71 | ISO 19901-6 | slings, shackles and other devices including spreader bars/frames used to connect the structure being lifted to the crane |
| rigging weight | 3.72 | ISO 19901-6 | total weight of rigging with slings, shackles and spreaders, including contingency |
| safe haven | 3.73 | ISO 19901-6 | sheltered location at which a tow or transport can seek refuge from inclement weather |
| sea fastening | 3.75 | ISO 19901-6 | temporary fastening items which keep movable items in position during transportation at sea [ISO 19901-5:2003] |
| sea floor | 3.76 | ISO 19901-6 | interface between the sea and the seabed [ISO 19901-4:2003] |
| seabed | 3.74 | ISO 19901-6 | materials below the sea in which the structure is founded, whether of soils such as sand, silt or clay, cemented material or of rock NOTE The seabed can be considered as the half-space below the sea floor. [ISO 19901-4:2003] |
| semi-submersible | 3.77 | ISO 19901-6 | floating structure normally consisting of a deck structure with a number of widely spaced, large-cross-section supporting columns connected to submerged pontoons [ISO 19904-1:2006] |
| skew load factor SKL | 3.78 | ISO 19901-6 | factor by which the load on any lift point, or pair of lift points, is multiplied to account for sling length mismatch in a statically indeterminate lift |
| skidshoe | 3.79 | ISO 19901-6 | bearing pad attached to the structure that engages in the skidway and carries a share of the vertical load |
| skidway | 3.80 | ISO 19901-6 | system of structural beams (concrete or steel) or rails, on the quay and on the barge, on which the structure is loaded out via the skidshoes |
| skirt | 3.81 | ISO 19901-6 | structure constructed at or below the base of a structure that extends downwards from the bottom of the foundation plate, penetrating into the seabed NOTE 1 Skirts are used to increase the capacity of the foundation to resist vertical and horizontal loads and improve erosion resistance. NOTE 2 Adapted from ISO 19903:2006, definition 3.49. |
| sling eye | 3.82 | ISO 19901-6 | loop at each end of a sling, either formed by a splice or by a mechanical termination |
| splash zone | 3.83 | ISO 19901-6 | area of a structure that is frequently wetted due to waves and tidal variations or during lift operations NOTE 1 Refers to the wave-affected zone of the water column surrounding a structure. NOTE 2 Adapted from ISO 19900:2002, definition 2.31. |

| Term | Ref | Standard | Definition |
|---------------------------------|------|-------------|--|
| splice | 3.84 | ISO 19901-6 | that length of sling where the rope is connected back into itself by tucking the tails of the unit ropes back through the main body of the rope(s), after forming the sling eye |
| spreader bar spreader frame | 3.85 | ISO 19901-6 | structure designed to resist the bending and compression forces induced by angled slings by altering the line of action of the force on a lift point into a vertical plane NOTE The usual purpose of a spreader bar or frame is to avoid a clash between the rigging and the structure, which would result if the rigging were connected directly from the lift point to the hook. |
| squat effect | 3.86 | ISO 19901-6 | tendency of floating objects or vessels to undergo an increase in draught when under way |
| steel cable-laid sling SCLS | 3.87 | ISO 19901-6 | assembly of several (usually six) round stranded steel wire ropes (referred to as unit ropes), laid helically around a core (usually a seventh rope) NOTE 1 The definition strictly applies to the type of steel wire rope construction. Cable-laid slings have hand-spliced eye end terminations by splicing the rope back on itself to form an eye termination. NOTE 2 See IMCA M179 for construction and use of cable-laid slings. |
| steel wire rope | 3.88 | ISO 19901-6 | rope made of various types of steel wire construction EXAMPLE A steel wire rope can be a stranded rope consisting of 6 or 8 strands laid helically around a core (steel core, fibre core, IWRC), a spiral rope, etc. NOTE Each combination of material and type of construction normally results in different properties and characteristics. |
| steel wire rope grommet SWRG | 3.89 | ISO 19901-6 | endless loop-shaped sling made up from a single length of round stranded steel wire rope NOTE 1 As for cable-laid slings, the steel wire rope used in a grommet is also referred to as a unit rope. NOTE 2 A steel wire rope grommet is constructed from one continuous length of stranded wire rope and consists of a body composed of six strands around a strand core. The rope is spirally wound around the core rope in six loops. During the production of grommets a temporary rigid core is used, which is replaced by the first half loop and the last half loop of the stranded wire rope. At the start of looping, the core rope changes into an outer rope, and at the end the sixth outer rope changes back into the core rope. When removing the temporary rigid core, the ends of the stranded wire are tucked into the body core, with the tuck position diametrically opposite to the core butt position. NOTE 3 See IMCA M179 for construction and use of steel wire rope grommets. |
| steel wire rope sling SWRS | 3.90 | ISO 19901-6 | sling made from a single steel wire rope with various possible end terminations NOTE Terminations include spliced eyes, Flemish eye with swaged steel sleeve (also known as super loop), spelter sockets, resin sockets, etc. |
| strength | 3.91 | ISO 19901-6 | mechanical property of a material indicating its ability to resist actions, usually given in units of stress [ISO 19902:2007] |

| Term | Ref | Standard | Definition |
|-------------------------------|-------|-------------|---|
| structure | 3.92 | ISO 19901-6 | organized combination of connected parts designed to withstand actions and provide adequate rigidity [ISO 19900:2002] |
| termination efficiency factor | 3.93 | ISO 19901-6 | factor by which the calculated breaking strength of a rope is reduced to take account of the reduction in strength caused by a splice or other end termination |
| topsides | 3.94 | ISO 19901-6 | structures and equipment placed on a supporting structure (fixed or floating) to provide some or all of a platform's functions NOTE 1 For a ship-shaped floating structure, the deck is not part of the topsides. NOTE 2 For a jack-up, the hull is not part of the topsides. NOTE 3 A separate fabricated deck or module support frame is part of the topsides. [ISO 19900:2002] |
| tow | 3.95 | ISO 19901-6 | marine transportation of an object or its supporting barge by being pulled or pushed by tow vessel(s) NOTE A tow can be defined into the following types: - dry marine transportation of an object with the object located clear of the water aboard a barge or other unit; - wet marine transportation of an object with the object floating directly in the water. |
| trailer | 3.96 | ISO 19901-6 | system of steerable wheels, connected to a central spine beam by hydraulic suspension that can be raised or lowered |
| trunnion | 3.97 | ISO 19901-6 | lift point on a structure consisting of a tubular member or cast cantilever with a stopping plate at the end, around which a sling or grommet can be passed NOTE An upending trunnion is used to rotate a structure from horizontal to vertical, or vice versa, and the trunnion forms a bearing point around which the sling, grommet or another structure rotates. |
| tugger lines | 3.98 | ISO 19901-6 | lines between a winch and an object to control the orientation and position to prevent or reduce the motion, or to position a lifted object during an installation operation |
| upending | 3.99 | ISO 19901-6 | process of changing the orientation of an object in the water from the horizontal to the vertical by means of ballasting, flooding, by crane assistance or a combination of these techniques, or in air only by means of crane assistance EXAMPLE Upending in air only by means of crane assistance of e.g. a flare. |
| verification | 3.100 | ISO 19901-6 | examination made to confirm that an activity, product, or service is in accordance with specified requirements |
| watertight | 3.101 | ISO 19901-6 | capability of preventing the penetration of water into or through the structure with a water-pressure head corresponding to that for which the surrounding structure is designed [ISO 19904-1:2006] |

| Term | Ref | Standard | Definition |
|--------------------------------|-------|-------------|--|
| weather window | 3.105 | ISO 19901-6 | period of time, sufficient in length to safely carry out a marine operation, for which forecast environmental conditions remain below prescribed limiting operational environmental criteria |
| weather-restricted operation | 3.102 | ISO 19901-6 | marine operation that can take place safely within the limits of a favourable weather forecast NOTE It is not necessary that the design weather criteria reflect the statistical extremes for the area and season. A suitable factor should be applied between design weather criteria and operational weather limiting criteria. |
| weathertight | 3.103 | ISO 19901-6 | capability of preventing the penetration of water into the structure during temporary exposure to water NOTE A watertight closing appliance is also considered weathertight. [ISO 19904-1:2006] |
| weather-unrestricted operation | 3.104 | ISO 19901-6 | marine operation that can take place safely in any weather condition that can be encountered during a season NOTE The statistical extremes for the area and seasons are considered in the design weather criteria. |
| working load limit WLL | 3.106 | ISO 19901-6 | maximum load that can safely be applied to a rope, sling, grommet, shackle or lift point |
| action | 3.1 | ISO 19901-7 | external load applied to the structure (direct action) or an imposed deformation or acceleration (indirect action) EXAMPLE An imposed deformation can be caused by fabrication tolerances, settlement, temperature change or moisture variation. NOTE An earthquake typically generates imposed accelerations. [ISO 19900:2002] |
| action effect | 3.2 | ISO 19901-7 | effect of actions on structural components [ISO 19900:2002] EXAMPLE Internal forces, moments, stresses, strains, rigid body motions or elastic deformations. |
| catenary mooring | 3.3 | ISO 19901-7 | mooring system where the restoring action is provided by the distributed weight of mooring lines [ISO 19900:2002] |
| characteristic value | 3.4 | ISO 19901-7 | value assigned to a basic variable, an action or a resistance from which the design value can be found by the application of a partial factor NOTE 1 The value usually has a prescribed probability of not being violated which, in the case of an action, will normally relate to a reference period. NOTE 2 Adapted from ISO 19900:2002, definition 2.7. |
| design criteria | 3.5 | ISO 19901-7 | quantitative formulations that describe the conditions to be fulfilled for each limit state [ISO 19900:2002] |

| Term | Ref | Standard | Definition |
|--|------|-------------|--|
| design service life | 3.6 | ISO 19901-7 | assumed period for which a structure or a structural component is to be used for its intended purpose with anticipated maintenance, but without substantial repair being necessary NOTE Adapted from ISO 19900:2002, definition 2.12. |
| design situation | 3.7 | ISO 19901-7 | set of physical conditions during a certain reference period for which the design will demonstrate that relevant limit states are not exceeded NOTE Adapted from ISO 19900:2002, definition 2.13. |
| dynamic action | 3.8 | ISO 19901-7 | action that induces acceleration of a structure or a structural component of a magnitude sufficient to require specific consideration |
| dynamic positioning DP | 3.9 | ISO 19901-7 | stationkeeping technique consisting primarily of a system of automatically controlled on-board thrusters, which generate appropriate thrust vectors to counter the mean and slowly varying induced actions |
| expected value | 3.10 | ISO 19901-7 | first-order statistical moment of the probability density function for the considered variable that, in the case of a time-dependent parameter, can be associated with a specific reference period |
| fit-for-purpose fitness-for-purpose | 3.11 | ISO 19901-7 | meeting the intent of an International Standard although not meeting specific provisions of that International Standard in local areas, such that failures in these areas will not cause unacceptable risk to life safety or the environment [ISO 19900:2002] |
| floating structure | 3.12 | ISO 19901-7 | structure where the full weight is supported by buoyancy [ISO 19900:2002] NOTE The full weight includes lightship weight, mooring system pre-tension, riser pre-tension, operating weight, etc. |
| limit state | 3.13 | ISO 19901-7 | state beyond which the structure no longer fulfils the relevant design criteria [ISO 19900:2002] |
| maintenance | 3.14 | ISO 19901-7 | set of activities performed during the operating life of a structure to ensure it is fit-for-purpose |
| minimum breaking strength MBS | 3.15 | ISO 19901-7 | RCS certified strength of a chain, wire rope, fibre rope or accessories |
| mobile mooring system | 3.16 | ISO 19901-7 | mooring system, generally retrievable, intended for deployment at a specific location for a short-term operation, such as those for mobile offshore units (MOUs) |
| mobile offshore drilling unit MODU | 3.17 | ISO 19901-7 | structure capable of engaging in drilling and well intervention operations for exploration or exploitation of subsea petroleum resources |

| Term | Ref | Standard | Definition |
|--|------|-------------|--|
| mobile offshore unit MOU | 3.18 | ISO 19901-7 | structure intended to be frequently relocated to perform a particular function [ISO 19900:2002] EXAMPLE Pipelaying vessel or barge, offshore construction structure, accommodation structure (floatel), service structure, or mobile offshore drilling units. |
| mooring components | 3.19 | ISO 19901-7 | general class of components used in the mooring of floating structures EXAMPLE Chain, steel wire rope, synthetic fibre rope, clump weight, buoy, winch/windlass, fairlead or anchor. |
| owner | 3.20 | ISO 19901-7 | representative of the company or companies which own a development, who can be the operator on behalf of co-licensees |
| permanent mooring system | 3.21 | ISO 19901-7 | mooring system normally used to moor floating structures deployed for long-term operations, such as those for a floating production system (FPS) |
| proximity | 3.22 | ISO 19901-7 | closeness in distance NOTE 1 Mooring systems are considered to be in proximity to a surface installation (or facility) if any part of the other installation lies within a contour described by the set of offsets coinciding with each line reaching 100 % MBS in the intact or redundancy check condition, whichever is larger. NOTE 2 Mooring systems are considered to be in proximity to a sea floor installation (or facility) if any part of the other installation lies within a polygon formed by the anchor locations. |
| recognized classification society RCS | 3.23 | ISO 19901-7 | member of the international association of classification societies (IACS), with recognized and relevant competence and experience in floating structures, and with established rules and procedures for classification/certification of installations used in petroleum-related activities |
| resistance | 3.24 | ISO 19901-7 | capacity of a structure, component or a cross-section of a component to withstand action effects without exceeding a limit state NOTE This definition is at variance with that specified in ISO 19900:2002. |
| return period | 3.25 | ISO 19901-7 | average period between occurrences of an event or of a particular value being exceeded NOTE The offshore industry commonly uses a return period measured in years for environmental events. The return period is equal to the reciprocal of the annual probability of exceedance of the event. [ISO 19901-1:2005] |
| riser | 3.26 | ISO 19901-7 | pipings connecting the process facilities or drilling equipment on the floating structure with the subsea facilities or pipelines, or reservoir NOTE 1 Possible functions include drilling and well intervention, production, injection, subsea systems control and export of produced fluids. NOTE 2 Adapted from ISO 19900:2002, definition 2.29. |

| Term | Ref | Standard | Definition |
|---------------------------|------------|-----------------|--|
| semi-submersible | 3.27 | ISO 19901-7 | floating structure normally consisting of a deck structure with a number of widely spaced, large cross-section, supporting columns connected to submerged pontoons NOTE Pontoon/column geometry is usually chosen to minimize global motions in a broad range of wave frequencies. |
| serviceability | 3.28 | ISO 19901-7 | ability of a structure or structural component to perform adequately for normal functional use |
| ship-shaped structure | 3.31 | ISO 19901-7 | monohull floating structure having a geometry similar to that of ocean-going ships |
| significant value | 3.29 | ISO 19901-7 | statistical measure of the peak responses NOTE In most offshore applications the significant value is taken as 2s, where s is the standard deviation of the time series of the zero-mean random variable over the duration of the measurement. |
| single point mooring | 3.30 | ISO 19901-7 | mooring system that allows the floating structure to which it is connected to vary its heading (weathervane) EXAMPLE One example of a single point mooring is a turret mooring system where a number of mooring lines are attached to a turret, which includes bearings to allow the structure to rotate. |
| spar platform | 3.32 | ISO 19901-7 | deep-draught, small water-plane area floating structure |
| spread mooring | 3.33 | ISO 19901-7 | mooring system consisting of multiple mooring lines terminated at different locations on a floating structure, and extending outwards, providing an almost constant structure heading |
| stationkeeping system | 3.34 | ISO 19901-7 | system capable of limiting the excursions of a floating structure within prescribed limits |
| structural component | 3.35 | ISO 19901-7 | physically distinguishable part of a structure [ISO 19900:2002] |
| structure | 3.36 | ISO 19901-7 | organized combination of connected components designed to withstand actions and provide adequate rigidity [ISO 19900:2002] |
| taut-line mooring | 3.37 | ISO 19901-7 | mooring system where the restoring action is provided by elastic deformation of mooring lines [ISO 19900:2002] |
| thruster-assisted mooring | 3.38 | ISO 19901-7 | stationkeeping system consisting of mooring lines and thrusters |
| verification | 3.39 | ISO 19901-7 | examination made to confirm that an activity, product, or service is in accordance with specified requirements |
| weathervaning | 3.40 | ISO 19901-7 | process by which a floating structure passively varies its heading in response to time-varying environmental actions |

| Term | Ref | Standard | Definition |
|-------------------------------|-----|-----------|---|
| abnormal value | 3.1 | ISO 19902 | <p>value of a parameter of abnormal severity used in accidental limit state checks in which a structure should not suffer complete loss of integrity</p> <p>NOTE 1 Abnormal design situations are used to provide robustness against events with a probability of exceedance of typically between 10^{-3} and 10^{-4} per annum by avoiding, for example, gross overloading.</p> <p>NOTE 2 Abnormal values and events have probabilities of exceedance of the order of 10^{-3} to 10^{-4} per annum. In the limit state checks, some or all of the partial factors are set to 1,0.</p> <p>NOTE 3 Adapted from ISO 19901-1:2005, definition 3.1.</p> |
| accidental design situation | 3.2 | ISO 19902 | <p>design situation involving exceptional conditions of the structure or its exposure</p> <p>EXAMPLE Impact, fire, explosion, local failure, loss of intended differential pressure (e.g. buoyancy).</p> |
| after damage design situation | 3.3 | ISO 19902 | <p>design situation for which the condition of the structure reflects damage due to an accidental design situation and for which the environmental conditions are specially defined</p> |
| analysis type | 3.4 | ISO 19902 | <p>method including governing equations for deriving action effects</p> <p>EXAMPLE Static analysis, transient dynamic analysis, non-linear analysis.</p> |
| basic variable | 3.5 | ISO 19902 | <p>one of a specified set of variables representing physical quantities which characterize actions, environmental influences, geometrical quantities, or material properties including soil properties</p> <p>[ISO 19900:2002]</p> |
| boundary conditions | 3.6 | ISO 19902 | <p>actions and constraints on a [section of a] structural component [or a group of structural components] by other structural components or by the environment surrounding it</p> <p>NOTE Boundary conditions can be used to generate reaction forces at locations of restraint.</p> |
| braced caisson | 3.7 | ISO 19902 | <p>monotower where the lower part of the monocolumn is supported laterally by one or more inclined braces between the column and one or more foundation piles</p> |
| bucket foundation | 3.8 | ISO 19902 | <p>foundation consisting of a cylindrical shell open on one end and installed by suction</p> |
| characteristic value | 3.9 | ISO 19902 | <p>value assigned to a basic variable associated with a prescribed probability of not being violated by unfavourable values during some reference period</p> <p>NOTE The characteristic value is the main representative value. In some design situations a variable can have two characteristic values, an upper and a lower value.</p> <p>[ISO 19900:2002]</p> |

| Term | Ref | Standard | Definition |
|-------------------------------------|------|-----------|--|
| compliant bottom founded structure | 3.10 | ISO 19902 | structure which is supported at its base by foundation piles or by another non-superficial foundation system and which is sufficiently flexible that applied lateral dynamic actions are substantially balanced by inertial reactions NOTE Although this International Standard is applicable to fixed steel offshore structures and is not intended to form a complete standard for compliant bottom founded structures, some of its requirements and guidance can be applied to compliant bottom founded structures. Parts of its requirements can also apply to other bottom founded structures (e.g. some forms of minimal structure), as considered appropriate and as agreed upon by parties concerned on a case by case basis. |
| consequence category | 3.11 | ISO 19902 | classification system for identifying the environmental, economic and indirect personnel safety consequences of failure of a platform NOTE Categories for environmental and economic consequences are (see 6.6.3) C1 high environmental and/or economic consequences, C2 medium environmental and/or economic consequences, and C3 low environmental and economic consequences. |
| critical component | 3.12 | ISO 19902 | structural component, failure of which would cause failure of the whole structure, or a significant part of it NOTE A critical component is part of the primary structure. |
| deformation capacity | 3.13 | ISO 19902 | ability of a structure or structural component to deform without significant loss of resistance, or the extent to which it can do so |
| design service life | 3.14 | ISO 19902 | assumed period for which a structure is to be used for its intended purpose with anticipated maintenance, but without substantial repair being necessary [ISO 19900:2002] |
| design value | 3.15 | ISO 19902 | value derived from the representative value for use in the design verification procedure [ISO 19900:2002] |
| dynamic amplification factor DAF | 3.16 | ISO 19902 | ratio of a dynamic action effect to the corresponding static action effect NOTE An appropriately selected dynamic amplification factor can be applied to static actions to simulate the effects of dynamic actions. |
| explosion | 3.17 | ISO 19902 | rapid chemical reaction of gas or dust in air NOTE An explosion results in increased temperatures and pressure impulses. A gas explosion on an offshore platform is usually a deflagration in which flame speeds remain subsonic. |
| exposure level | 3.18 | ISO 19902 | classification system used to define the requirements for a structure based on consideration of life-safety and of environmental and economic consequences of failure [ISO 19900:2002] |

| Term | Ref | Standard | Definition |
|-----------------------|------------|-----------------|--|
| extreme value | 3.19 | ISO 19902 | value of a parameter used in ultimate limit state checks, in which a structure's global behaviour is intended to stay in the elastic range NOTE Extreme values and events have probabilities of exceedance of the order of 10 ⁻² per annum. [ISO 19901-1:2002] |
| fit-for-purpose | 3.20 | ISO 19902 | meeting the intent of an International Standard although not meeting specific provisions of that International Standard in local areas, such that failure in these areas will not cause unacceptable risk to life-safety or the environment [ISO 19900:2002] |
| fixed structure | 3.21 | ISO 19902 | structure that is bottom founded and transfers all actions on it to the sea floor [ISO 19900:2002] |
| free-standing caisson | 3.22 | ISO 19902 | monotower where the structure consists, over its full height, of a single vertical column that continues into the seabed as the foundation pile |
| global analysis | 3.23 | ISO 19902 | determination of a consistent set of internal forces and moments, or stresses, in a structure that are in equilibrium with a defined set of actions on the entire structure NOTE When a global analysis is of a transient situation (e.g. seismic), the inertial response is part of the equilibrium. |
| hazard | 3.24 | ISO 19902 | potential for human injury, damage to the environment, damage to property, or a combination of these [ISO 13702:1999] NOTE Several of the usual hazards to a platform (e.g. extreme storms) are treated as design situations for a structure. In this International Standard, hazards are errors and abnormal and accidental situations. |
| jacket | 3.25 | ISO 19902 | fixed structure with leg piles and axial force transfer from the structure and topsides into the piles at the top of the structure NOTE See (ISO 19902) 6.1.2. |
| jack-up | 3.26 | ISO 19902 | mobile offshore unit that can be relocated and is bottom founded in its operating mode [ISO 19900:2002]. NOTE See (ISO 19902) 6.1.4. |
| life-safety category | 3.27 | ISO 19902 | classification system for identifying the applicable level of life-safety for a platform NOTE Categories for life-safety are (see 6.6.2) S1 manned non-evacuated, S2 manned evacuated, and S3 unmanned. |

| Term | Ref | Standard | Definition |
|--------------------------------|------|-----------|---|
| load arrangement | 3.28 | ISO 19902 | identification of the position, magnitude and direction of a free action |
| load case | 3.29 | ISO 19902 | compatible load arrangements, sets of deformations and imperfections considered simultaneously with permanent actions and fixed variable actions for a particular design or verification |
| local analysis | 3.30 | ISO 19902 | determination of a consistent set of internal forces and moments, or stresses, in a cross-section of a structural component, or in a subset of structural components forming part of the structural system, that are in equilibrium with the boundary conditions |
| maintenance | 3.31 | ISO 19902 | set of activities performed during the working life of the structure in order to enable it to fulfil the requirements for reliability NOTE Activities to restore the structure after an abnormal, accidental or seismic event are outside the scope of maintenance. |
| monotower | 3.32 | ISO 19902 | fixed structure in which the whole structure, or at least the upper part of the structure, consists of a single vertical column (tubular or framed) that carries the topsides NOTE Where only the upper part of the structure is a single vertical column, the lower part of the structure consists of tubular members or frames that connect the vertical column to the foundation piles or to another non-superficial foundation system that supports the monotower at its base, such as bucket foundations. |
| nominal geometrical properties | 3.33 | ISO 19902 | properties of a structural component derived from its representative geometrical dimensions, remote from the location under consideration and with any corrosion allowance removed NOTE 1 The nominal cross-section of a member at a joint is the cross-section beyond any joint can or brace stub forming part of the joint. NOTE 2 Nominal geometrical properties are used in a global analysis to calculate the global behaviour of the structure. NOTE 3 The nominal thickness of a component excludes any thickening of the component due to weldments. |
| nominal stress | 3.34 | ISO 19902 | stress calculated in a sectional area, including the stress raising effects of the macro-geometrical shape of the component of which the section forms a part, but disregarding the local stress raising effects from the section shape and any weldment or other fixing detail NOTE Overall elastic behaviour is assumed when calculating nominal stresses. |
| nominal value | 3.35 | ISO 19902 | value assigned to a basic variable determined on a non-statistical basis, typically from acquired experience or physical conditions [ISO 19900:2002] |
| owner | 3.36 | ISO 19902 | representative of the companies which own a development NOTE The owner will normally be the operator on behalf of co-licensees. |
| primary structure | 3.37 | ISO 19902 | all main structural components that provide the structure's main strength and stiffness |

| Term | Ref | Standard | Definition |
|-------------------------------|------|-----------|---|
| quasi-static analysis | 3.38 | ISO 19902 | static analysis of a structure subjected to actions that vary slowly in relation to the structure's fundamental natural period such that the influence of structural accelerations can be either safely neglected or is approximated by using an equivalent quasi-static action |
| redundancy | 3.39 | ISO 19902 | ability of a structure to find alternative load paths following failure of one or more non-critical components, thus limiting the consequences of such failures NOTE All structures having redundancy are statically indeterminate. |
| regulator | 3.40 | ISO 19902 | authority established by a national governmental administration to oversee the activities of the offshore oil and natural gas industries within its jurisdiction, with respect to the overall safety to life and protection of the environment NOTE 1 The term regulator can encompass more than one agency in any particular territorial waters. NOTE 2 The regulator can appoint other agencies, such as marine classification societies, to act on its behalf, and in such cases, regulator as it is used in this International Standard includes such agencies. NOTE 3 In this International Standard, the term regulator does not include any agency responsible for approvals to extract hydrocarbons, unless such agency also has responsibility for safety and environmental protection. |
| repair | 3.41 | ISO 19902 | activities performed to preserve or to restore the function of a structure that fall outside the definition of maintenance |
| representative value | 3.42 | ISO 19902 | value assigned to a basic variable for verification of a limit state [ISO 19900:2002] |
| representative yield strength | 3.43 | ISO 19902 | stress at which a material exhibits a specified deviation from proportionality of stress and strain NOTE An offset of 0,2 % is used for many metals, including the steels covered by this International Standard. |
| reserve strength ratio | 3.44 | ISO 19902 | measure of the capacity of a structural system to withstand overload NOTE For fixed steel offshore structures, the concept of a reserve strength ratio is usually applied to environmental actions (see 7.10), but is not limited to these actions. |
| risk reducing measures | 3.45 | ISO 19902 | measures undertaken to reduce either the probability or the consequences of an accident, including the preparation of contingency plans |
| robustness | 3.46 | ISO 19902 | ability of a structure to withstand events with a reasonable likelihood of occurring without being damaged to an extent disproportionate to the cause |
| secondary structure | 3.47 | ISO 19902 | structural components that, when removed, do not significantly alter the overall strength and stiffness of the structure |

| Term | Ref | Standard | Definition |
|------------------------------------|------|-----------|---|
| steel gravity structure | 3.48 | ISO 19902 | fixed structure that is held in place against environmental actions solely by the weight of the structure and any contained ballast, together with foundation resistance resulting from its weight and lateral resistance from any skirts NOTE Although this International Standard is not intended to form a complete standard for gravity structures, some of the requirements and guidance could be applied to gravity structures. |
| strength | 3.49 | ISO 19902 | mechanical property of a material indicating its ability to resist actions, usually given in units of stress |
| stress concentration factor SCF | 3.50 | ISO 19902 | factor relating a nominal stress to the local stress at a detail NOTE SCFs are very important for and especially used in determining fatigue damage (see 16.10.2). |
| structural analysis | 3.51 | ISO 19902 | process or algorithm for determining action effects from a given set of actions NOTE Structural analyses are performed at three levels (global analysis of an entire structure, local analysis of a structural component, local analysis of a section of a structural component) using different structural models. |
| structural component | 3.52 | ISO 19902 | physically distinguishable part of a structure [ISO 19900:2002] NOTE The main structural components of a fixed steel structure are tubular members (see Clause 13), tubular joints (see Clause 14), mechanical connectors and clamps (see Clause 15), foundation piles and bucket foundations (see Clause 17). |
| structural system | 3.53 | ISO 19902 | load-bearing components of a structure and the way in which these components function together [ISO 19900:2002] |
| topsides | 3.54 | ISO 19902 | structures and equipment placed on a supporting structure (fixed or floating) to provide some or all of a platform's functions [ISO 19900:2002] NOTE 1 For a ship-shaped floating structure, neither the deck nor a superstructure integral with the hull is part of the topsides. NOTE 2 For a jack-up, the hull is not part of the topsides. NOTE 3 A separate fabricated deck or module support frame is part of the topsides. |
| tower | 3.55 | ISO 19902 | fixed structure that is supported by foundation arrangements at the base of the structure NOTE See 6.1.3. |

| Term | Ref | Standard | Definition |
|--|------|-----------|---|
| utilization member utilization joint utilization | 3.56 | ISO 19902 | <p>maximum value of the ratio of the generalized representation of the design stress (force) in a structural component to the generalized representation of the design resistance in stress (force) units of the component</p> <p>NOTE 1 The utilization is the maximum absolute value of the ratio for all conditions being considered.</p> <p>NOTE 2 Only utilizations smaller than or equal to 1,0 satisfy the design criteria for a particular limit state.</p> <p>NOTE 3 The design stress (force) is the stress (force) due to factored actions: $F_d = F_r \gamma_f$. The design resistance is the representative resistance divided by the partial resistance factor: $R_d = R_r / \gamma_R$.</p> <p>NOTE 4 For members and joints subjected to a single force, the utilization, U, is equal to: $F_d/R_d = F_r \gamma_f \gamma_R/R_r$.</p> <p>NOTE 5 For members and joints subjected to combined forces, the internal stress (force) pattern and the design resistance combine into an interaction equation. If the interaction equation governing the design check is, or can be, reduced to an inequality of the form $U \leq 1,0$, then the utilization is equal to U.</p> |
| abnormal design situation | 3.1 | ISO 19903 | <p>design situation in which conditions exceed conventionally specified design conditions and which is used to mitigate against very remote events</p> <p>NOTE Abnormal design situations are used to provide robustness against events with a probability of typically 10⁻⁴ per annum or lower by avoiding, for example, gross overloading.</p> <p>[ISO 19901-2]</p> |
| abnormal earthquake level ALE | 3.2 | ISO 19903 | <p>intense earthquake of abnormal severity under the action of which the structure should not suffer complete loss of integrity</p> <p>NOTE The ALE event is comparable to the abnormal event in the design of fixed structures which are described in ISO 19902 and ISO 19903. When exposed to the ALE, a manned structure is supposed to maintain structural and/or floatation integrity for a sufficient period of time to enable evacuation to take place.</p> <p>[ISO 19901-2]</p> |
| accidental design situation | 3.3 | ISO 19903 | <p>design situation involving exceptional conditions of the structure or its exposure</p> <p>EXAMPLE Impact, fire, explosion, local failure or loss of intended differential pressure (e.g. buoyancy).</p> |
| action | 3.4 | ISO 19903 | <p>external load applied to the structure (direct action) or an imposed deformation or acceleration (indirect action)</p> <p>NOTE 1 An imposed deformation can be caused by fabrication tolerances, settlement, temperature change or moisture variation.</p> <p>NOTE 2 An earthquake typically generates imposed accelerations.</p> <p>[ISO 19900]</p> |
| action effect | 3.5 | ISO 19903 | <p>effect of action on structural components</p> <p>EXAMPLE Internal force, moment, stress or strain.</p> <p>[ISO 19900]</p> |

| Term | Ref | Standard | Definition |
|---|------|-----------|---|
| addition | 3.6 | ISO 19903 | finely divided material used in concrete in order to improve certain properties or to achieve special properties NOTE This International Standard deals with two types of inorganic additions: - nearly inert additions (type I); - pozzolanic or latent hydraulic additions (type II). |
| admixture | 3.7 | ISO 19903 | material added during the mixing process of concrete in small quantities related to the mass of cement to modify the properties of fresh or hardened concrete |
| after-damage design situation | 3.8 | ISO 19903 | design situation for which the condition of the structure reflects damage due to an accidental design situation and for which the environmental conditions are specially defined |
| aggregate | 3.9 | ISO 19903 | granular mineral material suitable for use in concrete NOTE Aggregate can be natural, artificial or recycled from material previously used in construction. |
| air cushion | 3.10 | ISO 19903 | air pumped into underbase compartments of the structure NOTE Normally applied in order to reduce the draft and increase the freeboard of the structure and/or to alter the structural loading. |
| atmospheric zone | 3.11 | ISO 19903 | part of the load-bearing structure that is above the splash zone |
| caisson | 3.12 | ISO 19903 | major portion of fixed concrete offshore structure, providing buoyancy during floating phases and the possibility of oil storage within the structure NOTE The caisson is generally divided into watertight compartments, which can be subdivided into intercommunicating cells for structural reasons. The caisson can also be filled, or partly filled, with ballast water and solid ballast. |
| characteristic value of a material property | 3.13 | ISO 19903 | value of a material or product property having a prescribed probability of not being attained in a hypothetical unlimited test series, a nominal value being used as the characteristic value in some circumstances NOTE The characteristic material property generally corresponds to a specified fractile of the assumed statistical distribution of the particular property of the material or product. Characteristic strength is normally defined as the value of the strength below which 5 % of the population of all possible strength determinations of the material under consideration are expected to fall or, alternatively, 95 % if an upper value is more severe. |
| concrete | 3.15 | ISO 19903 | material formed by mixing cement, coarse and fine aggregate and water, with or without the incorporation of admixtures and additions, which develops its properties by hydration of the cement |
| condition monitoring | 3.16 | ISO 19903 | evaluation of the condition and behaviour of the load-bearing structure(s) in service using data from design, inspection and instrumentation |
| construction afloat | 3.17 | ISO 19903 | fabrication, construction and related activities taking place on a structure that is afloat, normally at an inshore location and restrained by a temporary mooring system |

| Term | Ref | Standard | Definition |
|-------------------------------------|------------|-----------------|--|
| critical shear zone | 3.14 | ISO 19903 | zone in which the shear stress is at a maximum in relation to the shear strength |
| deck mating | 3.18 | ISO 19903 | marine operation in which the platform topsides is floated into position and connected to the substructure NOTE This operation is normally conducted by ballasting and deballasting of the substructure. |
| deep water construction site | 3.19 | ISO 19903 | site for construction of the structure while afloat NOTE The use of a deep water site might not always be required, depending on the construction method. It might or might not be the same location as that where mating of topsides to the substructure takes place. |
| design rules | 3.20 | ISO 19903 | rules in accordance with the chosen reference standard for concrete design NOTE See 8.2. |
| dynamic amplification factor DAF | 3.21 | ISO 19903 | ratio of a dynamic action effect to the corresponding static action effect NOTE An appropriately selected dynamic amplification factor can be applied to static actions to simulate the effects of dynamic actions. |
| execution | 3.23 | ISO 19903 | all activities carried out for the physical completion of the work including procurement, inspection and documentation thereof NOTE The term covers work on site; it might also signify the fabrication of components off-site and their subsequent erection on site. |
| exposure level | 3.24 | ISO 19903 | classification system used to define the requirements for a structure based on consideration of life safety and of environmental and economic consequences of failure NOTE The method for determining exposure levels is described in ISO 19902. An exposure level 1 platform is the most critical and exposure level 3 the least. A normally manned platform which cannot be reliably evacuated before a design event will be an exposure level 1 platform. [ISO 19900] |
| extreme level earthquake ELE | 3.22 | ISO 19903 | earthquake with a severity which the structure should sustain without major damage NOTE The ELE event is comparable to the extreme environmental event in the design of fixed structures which are described in ISO 19902 and ISO 19903. When exposed to an ELE, a structure is supposed to retain its full capacity for all subsequent conditions. [ISO 19901-2] |
| finite element analysis FEA | 3.25 | ISO 19903 | analysis method whereby a structure or a part thereof is subdivided into small elements of known or assumed behaviour, then analysed by numerical matrix methods to determine action effects, static or dynamic |

| Term | Ref | Standard | Definition |
|--|------|-----------|--|
| fixed concrete offshore structure FCS | 3.26 | ISO 19903 | concrete structure designed to rest on the sea floor NOTE Sufficient structural stability can be achieved through its own weight, or in combination with suction in skirt compartments, or founding of the structure on piles into the seabed. It includes the mechanical outfitting of the structure. |
| fixed structure | 3.27 | ISO 19903 | structure that is bottom founded and transfers all actions on it to the seabed [ISO 19900] |
| float-out | 3.28 | ISO 19903 | transfer of a major assembly from a dry construction site to a self-floating condition NOTE Typically, it is the transfer of the lower part of the concrete structure from a flooded drydock. |
| global analysis | 3.29 | ISO 19903 | determination of a consistent set of either internal forces and moments or of stresses in a structure that are in equilibrium with a defined set of actions on the entire structure and which depend on geometrical, structural and material properties NOTE For a global analysis of a transient situation (e.g. seismic), the internal response is part of the equilibrium. |
| inspection | 3.30 | ISO 19903 | conformity evaluation by observation and judgement accompanied, as appropriate, by measurement, testing or gauging to verify that the execution is in accordance with the project work specification |
| installation | 3.31 | ISO 19903 | marine operation in which the platform is positioned and set down on the sea floor at the offshore site |
| instrumentation | 3.32 | ISO 19903 | outfitting of a fixed concrete offshore structure with instruments for data measurement and recording |
| interface manual | 3.33 | ISO 19903 | document defining all interfaces between the various parties and disciplines involved in the design and construction, ensuring that responsibilities, reporting and information routines, as appropriate, are established and maintained |
| lightweight aggregate | 3.34 | ISO 19903 | aggregate of mineral origin having an oven-dry particle density $\leq 2\,000\text{ kg/m}^3$ or a loose oven-dry bulk density $\leq 1\,200\text{ kg/m}^3$ |
| local analysis | 3.35 | ISO 19903 | determination of a consistent set of internal forces and moments, or stresses, in a cross-section of a structural component, or in a subset of structural components forming part of the structural system, that are in equilibrium with the boundary conditions |
| marine operation | 3.36 | ISO 19903 | planned and controlled vertical or horizontal movement of a structure or component thereof over, in or on water |
| method statement | 3.37 | ISO 19903 | document stating the methods and procedures to be used to perform the work |
| normal-weight aggregate | 3.38 | ISO 19903 | aggregate with an oven-dry particle density between $2\,000\text{ kg/m}^3$ and $3\,000\text{ kg/m}^3$ |
| offshore site | 3.39 | ISO 19903 | offshore location where the structure is to be installed for its operational life |

| Term | Ref | Standard | Definition |
|----------------------------|------|-----------|--|
| operations manual | 3.40 | ISO 19903 | document giving the requirements and restrictions related to a safe operation of the concrete structure and all its systems |
| owner | 3.41 | ISO 19903 | representative of the companies which own a development NOTE The owner will normally be the operator on behalf of co-licensees. |
| primary structure | 3.42 | ISO 19903 | all main structural components (concrete or steelwork) that provide the structure's main strength and stiffness |
| procedure | 3.43 | ISO 19903 | document that describes a specified way to carry out an activity or a process, the detailed sequence and interrelationships required for the completion of a particular task |
| project specification | 3.44 | ISO 19903 | document giving the overall technical requirements provided by the owner |
| project work specification | 3.45 | ISO 19903 | all information and technical requirements necessary for the execution of the works, includes documents and drawings, etc. as well as references to relevant regulations, specifications, etc. |
| quality plan | 3.46 | ISO 19903 | document specifying which procedures and associated resources shall be applied by whom and when, covering the entire project or defined parts of the project and all relevant products, processes or contracts |
| secondary structure | 3.47 | ISO 19903 | structural components that do not contribute significantly to the overall strength and stiffness of the structure but which support individual items of equipment, transferring the actions thereon onto the primary structure |
| Shaft | 3.48 | ISO 19903 | compartment extending from the caisson of the fixed concrete offshore structure to the topsides NOTE A shaft is generally used to house and support the wells (drill shaft), mechanical systems (utility shaft) and risers and J-tubes (riser shaft). The part of a shaft extending above a caisson is also often referred to as a leg. |
| Skirts | 3.49 | ISO 19903 | structural components constructed in concrete and/or steel that extend from the foundation downwards and penetrate into the seabed NOTE Skirts are used to increase the capacity of the foundation to resist vertical and horizontal actions and improve erosion resistance. Skirts can also be needed to form compartments facilitating the under-base grouting. |
| solid ballast | 3.50 | ISO 19903 | non-structural material added to a structure NOTE Solid ballast is normally applied in order to increase the self weight of the structure or to lower the centre of gravity for floating stability purposes. |
| splash zone | 3.51 | ISO 19903 | area of a structure that is frequently wetted due to waves and tidal variations [ISO 19900] |
| structure | 3.52 | ISO 19903 | organized combination of connected parts designed to withstand actions and provide adequate rigidity [ISO 19900] |
| submerged zone | 3.53 | ISO 19903 | part of the structure that is normally submerged and exposed to the constant influence of sea water |

| Term | Ref | Standard | Definition |
|-----------------------------|------|-------------|---|
| subsidence | 3.54 | ISO 19903 | that part of the settlement of the structure that results from extraction of reservoir hydrocarbons and factors other than the weight of the structure |
| summary report | 3.55 | ISO 19903 | document including the most important assumptions on which the design, construction and installation work is based with regard to the load-bearing structure |
| Topsides | 3.56 | ISO 19903 | structures and equipment placed on a supporting structure (fixed or floating) to provide some or all of a platform's functions NOTE A separate fabricated deck or module support frame is part of the topsides. [ISO 19900] |
| tow to field | 3.57 | ISO 19903 | marine operation in which the complete platform or structure is moved from the dry dock or inshore construction site to the offshore site |
| Works | 3.58 | ISO 19903 | construction work described in the project work specification |
| works certificate | 3.59 | ISO 19903 | mill certificate document issued by the manufacturer or a testing institute certifying the materials delivered, and giving - test method, specifications and criteria (e.g. test standard used), - all relevant test data, - certification that the tests have been carried out on samples taken from the delivered products, and - all necessary information for identification of product, producer and purchaser. NOTE A works certificate is normally required for construction materials that are not subject to an accepted certification scheme. |
| abnormal | 3.1 | ISO 19904-1 | condition that exceeds conventionally specified design conditions and which is used to mitigate against very remote events |
| accidental design situation | 3.2 | ISO 19904-1 | design situation involving exceptional conditions of the structure or its exposure EXAMPLE Impact, fire, explosion, local failure or loss of intended differential pressure (e.g. buoyancy). |
| action | 3.3 | ISO 19904-1 | external load applied to the structure (direct action) or an imposed deformation or acceleration (indirect action) EXAMPLE An imposed deformation can be caused by fabrication tolerances, settlement, temperature change or moisture variation. NOTE An earthquake typically generates imposed accelerations. [ISO 19900:2002] |
| action combination | 3.4 | ISO 19904-1 | design values of different actions considered simultaneously in design checks of the structure for a specific limit state |

| Term | Ref | Standard | Definition |
|----------------------|------------|-----------------|---|
| action effect | 3.5 | ISO 19904-1 | effect of actions on structural components EXAMPLE Internal forces, moments, stresses, strains, rigid body motions or elastic deformations. [ISO 19900:2002] |
| air gap | 3.6 | ISO 19904-1 | clearance between the highest water surface that occurs during the extreme environmental conditions and the lowest exposed part not designed to withstand wave impingement [ISO 19900:2002] |
| basic variable | 3.7 | ISO 19904-1 | one of a specified set of variables representing physical quantities which characterize actions, environmental influences, geometrical quantities, or material properties, including soil properties [ISO 19900:2002] |
| characteristic value | 3.8 | ISO 19904-1 | value of a basic variable, an action or a strength model having a prescribed probability of not being violated by unfavorable values NOTE 1 In the case of actions and related properties, the characteristic value normally relates to a reference period. NOTE 2 Adapted from ISO 19900:2002, definition 2.7. |
| design criteria | 3.9 | ISO 19904-1 | quantitative formulations that describe the conditions to be fulfilled for each limit state [ISO 19900:2002] |
| design format | 3.10 | ISO 19904-1 | mathematical description for checks to verify non-exceedance of a limit state NOTE In this part of ISO 19904, both partial factor and working stress design (WSD) formats are permitted. |
| design service life | 3.11 | ISO 19904-1 | assumed period for which a structure or a structural component is to be used for its intended purpose with anticipated maintenance, but without substantial repair being necessary NOTE Adapted from ISO 19900:2002, definition 2.12. |
| design situation | 3.12 | ISO 19904-1 | set of physical conditions during a certain reference period for which the design demonstrates that relevant limit states are not exceeded NOTE Adapted from ISO 19900:2002, definition 2.13. |

| Term | Ref | Standard | Definition |
|---|------|-------------|--|
| design value | 3.13 | ISO 19904-1 | <p>value of a basic variable, action or strength model derived from a representative value for use in a design verification procedure</p> <p>NOTE 1 For a ULS design check in accordance with the partial factor design format, a design value for a strength variable or model is found by dividing the representative value of strength by a partial resistance factor, while for an action variable it is found by multiplying the representative value of the action effect by a partial action factor.</p> <p>NOTE 2 For an FLS, SLS or ALS design check in accordance with the partial factor design format, all partial factors are equal to unity so that, in these cases, a design value is equal to the representative value.</p> <p>NOTE 3 For any design check in accordance with the working stress design format, all partial factors are equal to unity so that, in these cases, a design value is equal to the representative value. Appropriate global safety or utilization factors are applied in design checks.</p> <p>NOTE 4 In the case of actions and related properties, the value can relate to a reference period.</p> <p>NOTE 5 Adapted from ISO 19900:2002, definition 2.14.</p> |
| dynamic action | 3.14 | ISO 19904-1 | action that induces acceleration of a structure or a structural component of a magnitude sufficient to require specific consideration [ISO 19901-7:2005] |
| dynamic positioning DP | 3.15 | ISO 19904-1 | stationkeeping technique consisting primarily of a system of on-board thrusters, which generate appropriate thrust vectors to counter the mean and slowly varying induced actions |
| exposure level | 3.16 | ISO 19904-1 | classification system used to define the requirements for a structure based on consideration of life-safety and of environmental and economic consequences of failure [ISO 19900:2002] |
| failure | 3.17 | ISO 19904-1 | insufficient strength or inadequate serviceability of a structure or structural component, or, in a structural check, a condition in which a structure or component thereof does not fulfil its limit state requirement |
| fit-for-purpose, adjective fitness-for-purpose, noun | 3.18 | ISO 19904-1 | <p>meeting the intent of a standard although not meeting specific provisions of that standard in local areas, such that failure in these areas cannot cause unacceptable risk to life-safety or the environment</p> <p>NOTE Adapted from ISO 19900:2002, definition 2.16.</p> |
| floating structure | 3.19 | ISO 19904-1 | <p>structure where the full weight is supported by buoyancy [ISO 19900:2002]</p> <p>NOTE The full weight includes lightship weight, mooring system pre-tension, riser pre-tension and operating weight.</p> |
| freeboard | 3.20 | ISO 19904-1 | distance measured vertically downwards between the top of the hull and the mean water surface at a given draught |
| green water | 3.21 | ISO 19904-1 | overtopping of deck by water causing slamming and pressure actions to structures on deck |
| limit state | 3.22 | ISO 19904-1 | state beyond which the structure no longer fulfils the relevant design criteria [ISO 19900:2002] |

| Term | Ref | Standard | Definition |
|--|------------|-----------------|---|
| mobile offshore drilling unit MODU | 3.23 | ISO 19904-1 | structure capable of engaging in drilling and well intervention operations for exploration or exploitation of subsea petroleum resources [ISO 19901-7:2005] |
| mobile offshore unit MOU | 3.24 | ISO 19904-1 | structure intended to be relocated to perform a particular function [ISO 19900:2002] |
| monohull | 3.25 | ISO 19904-1 | floating structure consisting of a single, continuous, buoyant hull, and having a geometry similar to that of ocean-going ships, barges, etc. |
| nominal value | 3.26 | ISO 19904-1 | value of a basic variable, action or strength model determined on a non-statistical basis, typically from acquired experience or physical conditions EXAMPLE Value published in a recognized code or standard. NOTE Adapted from ISO 19900:2002, definition 2.22. |
| owner | 3.27 | ISO 19904-1 | representative of the company or companies which own a development, who can be the operator on behalf of co-licensees [ISO 19901-7:2005] |
| platform | 3.28 | ISO 19904-1 | complete assembly including structure, topsides and, where applicable, foundations and stationkeeping system NOTE Adapted from ISO 19900:2002, definition 2.23. |
| recognized classification society RCS | 3.29 | ISO 19904-1 | member of the international association of classification societies (IACS), with recognized and relevant competence and experience in floating structures, and with established rules and procedures for classification/certification of installations used in petroleum or natural gas activities, located at a specific site for an extended period of time NOTE Adapted from ISO 19901-7:2005, definition 3.23. |
| reliability | 3.30 | ISO 19904-1 | ability of a structure or structural component to fulfil the specified requirements [ISO 19900:2002] |
| representative value | 3.31 | ISO 19904-1 | value of a basic variable, action or strength model, for verification of a limit state NOTE 1 The representative value can equal a characteristic value, a nominal value, or other rationally determined value. NOTE 2 For actions, this can relate to upper or lower characteristic values, dependent on which causes the more onerous condition. In combinations, it can involve multiplying the chosen value by a factor greater or less than unity. NOTE 3 Adapted from ISO 19900:2002, definition 2.26. |
| resistance | 3.32 | ISO 19904-1 | capacity of a structure, component or cross-section of a component to withstand action effects without exceeding a limit state NOTE Adapted from ISO 19900:2002, definition 2.27. |

| Term | Ref | Standard | Definition |
|--|------|-------------|--|
| return period | 3.33 | ISO 19904-1 | average period between occurrences of an event or of a particular value being exceeded NOTE The offshore industry commonly uses a return period measured in years for environmental events. The return period in years is equal to the reciprocal of the annual probability of exceedance of the event. [ISO 19901-1:2005] |
| riser | 3.34 | ISO 19904-1 | pipings connecting the process facilities or drilling equipment on the floating structure with the subsea facilities or pipelines, or with a reservoir NOTE 1 Possible functions include drilling and well intervention, production, injection, subsea systems control and export of produced fluids. NOTE 2 Adapted from ISO 19900:2002, definition 2.29. |
| robustness | 3.35 | ISO 19904-1 | ability of a structure to withstand events that have a reasonable likelihood of occurring, without the structure being damaged to an extent disproportionate to the cause NOTE Possible causes can be events like fire, explosions or impacts. |
| semi-submersible | 3.36 | ISO 19904-1 | floating structure normally consisting of a deck structure with a number of widely spaced, large cross-section, supporting columns connected to submerged pontoons NOTE Pontoon/column geometry is usually chosen to minimize global motions in a broad range of wave frequencies. |
| slamming | 3.37 | ISO 19904-1 | impulsive action with high pressure peaks that occurs during impact between a portion of the structure and water NOTE Slamming can, for example, be due to emergence and re-entry of a lower section of the hull into the water or can be due to wave impact on a structural component. |
| sloshing | 3.38 | ISO 19904-1 | impact action on the boundaries of a partially filled tank due to internal fluid motion |
| spar platform spar deep draught caisson vessel DDCV | 3.39 | ISO 19904-1 | deep-draught, small water-plane area floating structure [ISO 19901-7:2005] |
| special areas | 3.40 | ISO 19904-1 | areas identified by the designer as being of critical importance to the structural integrity and safety of the structure |
| stability hydrostatic stability | 3.41 | ISO 19904-1 | ability of a floating structure to generate restoring moment after deviation from the equilibrium floating position |
| static action | 3.42 | ISO 19904-1 | action that cannot cause significant acceleration of the structure or structural components |
| stationkeeping system | 3.43 | ISO 19904-1 | system capable of limiting the excursions of a floating structure within prescribed limits [ISO 19901-7:2005] |
| structural component | 3.45 | ISO 19904-1 | physically distinguishable part of a structure [ISO 19900:2002] |

| Term | Ref | Standard | Definition |
|---|------|-------------|--|
| structural system | 3.46 | ISO 19904-1 | combination of structural components acting in such a manner that the components function together NOTE Adapted from ISO 19900:2002, definition 2.32. |
| structure | 3.44 | ISO 19904-1 | organized combination of connected components designed to withstand actions and provide adequate rigidity [ISO 19900:2002] |
| topsides | 3.47 | ISO 19904-1 | structures and equipment placed on a supporting structure (fixed or floating) to provide some or all of a platform's functions NOTE For a monohull, the deck is not part of the topsides. [ISO 19900:2002] |
| variable action Q | 3.48 | ISO 19904-1 | action for which the variation in magnitude with time cannot be neglected compared with the mean value, or for which the point of application varies with time |
| verification | 3.49 | ISO 19904-1 | examination made to confirm that an activity, product or service is in accordance with specified requirements [ISO 19901-7:2005] |
| watertight | 3.50 | ISO 19904-1 | capable of preventing the penetration of water into or through the structure with a water pressure head corresponding to that for which the surrounding structure is designed |
| weathertight | 3.51 | ISO 19904-1 | capable of preventing the penetration of water into the structure during temporary exposure to water NOTE A watertight closing appliance is also considered weathertight. |
| abnormal wave crest | 3.2 | ISO 19905-1 | crest of wave with probability of typically 10 ⁻³ to 10 ⁻⁴ per annum |
| accidental situation | 3.3 | ISO 19905-1 | exceptional situation of the structure EXAMPLES: Accidental situations include impact, fire, explosion, local failure or loss of intended differential pressure (e.g. buoyancy). |
| action | 3.4 | ISO 19905-1 | external load applied to the structure (direct action) or an imposed deformation or acceleration (indirect action) EXAMPLE: An imposed deformation can be caused by fabrication tolerances, settlement, temperature change or moisture variation. NOTE: An earthquake typically generates imposed accelerations. [ISO 19900:2002] |
| critical component | 3.6 | ISO 19905-1 | structural component, failure of which would cause failure of the whole structure, or a significant part of it NOTE: A critical component is part of the primary structure. |
| Assessment site-specific assessment | 3.9 | ISO 19905-1 | evaluation of the stability and structural integrity of a jack up and, where applicable, its seabed restraint or support against the actions determined in accordance with the requirements of this document NOTE: An assessment may be limited to an evaluation of the components or members of the structure which, when removed or damaged, would cause failure of the whole structure, or a significant part of it. |

| Term | Ref | Standard | Definition |
|----------------------|------|-------------|--|
| assessment situation | 3.10 | ISO 19905-1 | jack up configuration together with the environmental loading to be assessed NOTE 1: For discussion on configuration, see 5.4.1. NOTE 2: The assessment situations are checked against the acceptance criteria of this document to demonstrate that the relevant limit states are not exceeded. |
| backfill | 3.11 | ISO 19905-1 | submerged weight of all of the soil which might be present directly above the spudcan NOTE: Backfilling might occur during or after preloading. BFo refers to the submerged weight of the backfilling that occurs up to achieving the preload reaction. BFA refers to the submerged weight of the backfilling that occurs after the preload. Both BFo and BFA can comprise backflow and/or infill. For discussion of the effects see A.9.3.2.2.4. |
| assessor | 3.12 | ISO 19905-1 | entity performing the site-specific assessment |
| backflow | 3.13 | ISO 19905-1 | soil that flows from beneath the spudcan around the sides and onto the top NOTE: Backflow is part of backfill (see 3.xx). |
| basic variable | 3.14 | ISO 19905-1 | one of a specified set of variables representing physical quantities which characterize actions, environmental influences, geometrical quantities, or material properties including soil properties [ISO 19900:2002] |
| boundary conditions | 3.16 | ISO 19905-1 | actions and constraints on a (section of a) structural component (or a group of structural components) by other structural components or by the environment surrounding it NOTE: Boundary conditions may be used to generate reaction forces at locations of restraint. [ISO 19902:2007] |
| chart datum | 3.18 | ISO 19905-1 | local datum used to fix water depths on a chart or tidal heights over an area NOTE: Chart datum is usually an approximation to the level of the lowest astronomical tide. [ISO 19901-1:2005] |
| component | 3.19 | ISO 19905-1 | see structural component |
| consequence category | 3.20 | ISO 19905-1 | classification system for identifying the environmental, economic and indirect personnel safety consequences of failure a jack up NOTE: Categories for environmental and economic consequences are (see 5.3.3): C1: high environmental and/or economic consequence, C2: medium environmental and/or economic consequence, and C3: low environmental and/or economic consequence. NOTE: Adapted from ISO 19902:2007, definition 3.11. |

| Term | Ref | Standard | Definition |
|---|------|-------------|--|
| recognized classification society (RCS) | 3.21 | ISO 19905-1 | member of the international association of classification societies (IACS), with recognized and relevant competence and experience in jack ups, and with established rules and procedures for classification/certification of such installations used in petroleum-related activities NOTE: Adapted from ISO 19901-7:2005, definition 3.23. |
| deterministic analysis | 3.23 | ISO 19905-1 | analysis in which the response is determined from a single combination of actions |
| dynamic amplification factor DAF | 3.24 | ISO 19905-1 | ratio of a dynamic action effect to the corresponding static action effect [ISO 19902:2007] NOTE: For a jack up the dynamic action effect is best simulated by means of a concentrated or distributed inertial loadset. It is usually not appropriate to factor the static actions to simulate the effects of dynamic actions. |
| DAFS | 3.25 | ISO 19905-1 | ratio of the amplitude of a dynamic action effect to the amplitude of the corresponding static action effect, each excluding their mean value |
| DAFR | 3.26 | ISO 19905-1 | ratio of the absolute value of a dynamic action effect to the absolute value of the corresponding static action effect, each including their mean value |
| exposure level | 3.27 | ISO 19905-1 | classification system used to define the requirements for a structure based on consideration of life-safety and of environmental and economic consequences of failure [ISO 19902:2007] NOTE: An exposure level 1 (L1) jack up is the most critical and exposure level 3 (L3) the least. |
| extreme storm event | 3.28 | ISO 19905-1 | extreme combination of wind, wave and current conditions which the structure can be subjected to during its deployment NOTE 1: This is the metocean event used for ULS storm assessment (see Clause 6.4). |
| fixed load | 3.29 | ISO 19905-1 | permanent parts of the jack up including hull, legs and spudcans, outfit, stationary and moveable-fixed equipment NOTE 1: Moveable-fixed equipment normally includes the drilling package structure and associated permanently attached equipment. |
| footprint | 3.30 | ISO 19905-1 | seabed depression which remains when a jack up is removed from a site |
| foundation | 3.31 | ISO 19905-1 | soil and spudcan supporting a jack up leg |
| foundation fixity | 3.32 | ISO 19905-1 | rotational restraint offered by the soil to the spudcan |
| foundation stability | 3.33 | ISO 19905-1 | ability of the foundation to provide sufficient support to remain stable when subjected to actions and incremental deformation |

| Term | Ref | Standard | Definition |
|---------------------------------|------|-------------|--|
| global analysis | 3.36 | ISO 19905-1 | determination of a consistent set of internal forces and moments, or stresses, in a structure that are in equilibrium with a defined set of actions on the entire structure NOTE: When a global analysis is of a transient situation (e.g. earthquake), the inertial response is part of the equilibrium. [ISO 19902:2007] |
| infill | 3.37 | ISO 19905-1 | soil above the plan area of the spudcan arising from sediment transport or hole sidewall collapse NOTE: Infill is part of backfill (see 3.xx). |
| independent leg jack up | 3.40 | ISO 19905-1 | jack up unit with legs that can be raised and lowered independently |
| inertial loadset | 3.41 | ISO 19905-1 | a set of actions that approximates the effect of the inertial forces NOTE: An inertial loadset is used only in quasi-static analyses. |
| intrinsic wave frequency | 3.43 | ISO 19905-1 | wave frequency of a periodic wave in a reference frame that is stationary with respect to the wave, i.e. with no current present |
| jack up | 3.44 | ISO 19905-1 | mobile offshore unit with a buoyant hull and one or more legs that can be moved up and down relative to the hull NOTE: A jack up reaches its operational mode by lowering the leg(s) to the seabed and then raising the hull to the required elevation. The majority of jack ups have three or more legs, each of which can be moved independently and which are supported on the seabed by spudcans. |
| jack up owner | 3.? | ISO 19905-1 | representative of the companies owning or chartering the jack up |
| joint probability metocean data | 3.45 | ISO 19905-1 | combinations of wind, wave and current which produce the action effect that would be expected to occur at a site, on average, once in the return period |
| leaning instability | 3.46 | ISO 19905-1 | instability of an independent leg jack up that can arise when the rate of increase of actions on the foundation with jack up inclination exceeds the rate of increase of foundation capacity with depth |
| life-safety category | 3.49 | ISO 19905-1 | classification system for identifying the applicable level of life-safety of personnel on a jack up: NOTE 1: Categories for life-safety are (see 5.5.2): S1 : manned non-evacuated, S2 :manned-evacuated, and S3 : unmanned. NOTE 2: Adapted from ISO 19902:2007, definition 3.27. |
| limit state | 3.50 | ISO 19905-1 | state beyond which the structure no longer fulfils the relevant assessment criteria NOTE: Adapted from ISO 19900:2002, definition 2.21. |
| long-term operation | 3.55 | ISO 19905-1 | operation of a jack up on one particular site for more than the normal RCS special survey period of five years |

| Term | Ref | Standard | Definition |
|--|------|-------------|--|
| lowest astronomical tide LAT | 3.56 | ISO 19905-1 | level of low tide when all harmonic components causing the tides are in phase NOTE: The harmonic components are in phase approximately once every 19 years but these conditions are approached several times each year. [ISO 19901-1:2005] |
| mat-supported jack up | 3.?? | ISO 19905-1 | jack up unit with the leg(s) rigidly connected by a foundation structure such that the leg(s) must be raised and lowered in unison |
| mean high water spring tidal level MHWS | 3.57 | ISO 19905-1 | arithmetic mean of all high water spring tidal sea levels measured over a long period, ideally 19 years |
| mean low water spring tidal level MLWS | 3.?? | ISO 19905-1 | arithmetic mean of all low water spring tidal sea levels measured over a long period, ideally 19 years |
| mean sea level MSL | 3.58 | ISO 19905-1 | arithmetic mean of all sea levels measured at hourly intervals over a long period, ideally 19 years NOTE: Seasonal changes in mean level can be expected in some regions and over many years the mean sea level can change. [ISO 19901-1:2005] |
| mean zero-upcrossing period | 3.59 | ISO 19905-1 | average period of the zero-upcrossing waves in a sea state NOTE: In practice the mean zero-crossing period is often estimated from the zeroth and second moments of the wave spectrum as NOTE: Adapted from ISO 19901-1:2005 definition 3.17 |
| member | 3.60 | ISO 19905-1 | see structural member |
| most probable maximum extreme MPME | 3.61 | ISO 19905-1 | value of the maximum of a variable with the highest probability of occurring over a defined period of time (e.g. X hours) NOTE 1: The most probable maximum extreme is the value for which the probability density function of the maxima of the variable has its peak. It is also called the mode or modus of the statistical distribution. NOTE 2: Adapted from ISO 19901-1:2005, definition 3.19. |
| nominal stress | 3.62 | ISO 19905-1 | stress calculated in a sectional area, including the stress raising effects of the macro-geometrical shape of the component of which the section forms a part, but disregarding the local stress raising effects from the section shape and any weldment or other fixing detail NOTE: Overall elastic behaviour is assumed when calculating nominal stresses. [ISO 19902:2007] |

| Term | Ref | Standard | Definition |
|--|------|-------------|--|
| nominal strength | 3.63 | ISO 19905-1 | strength calculated for a cross-sectional area, taking into account the stress raising effects of the macro-geometrical shape of the component of which the section forms a part, but disregarding the local stress raising effects from the section shape and any weldment or other fixing detail NOTE: Adapted from ISO 19902:2007, definition 3.34. |
| operations manual marine operations manual | 3.66 | ISO 19905-1 | the operating manual that defines the operational characteristics and capabilities of the jack up in accordance with the IMO MODU code NOTE: The assessor is advised to ensure that the operations manual referenced is the latest revision and that he is provided with any updated weight data. |
| operator | 3.67 | ISO 19905-1 | representative of the companies leasing the site NOTE: The operator will normally be the oil company acting on behalf of co-licensees. |
| preloading | 3.68 | ISO 19905-1 | installation of the spudcans by vertical loading of the soil beneath a jack up leg spudcan with the objective of ensuring sufficient foundation capacity under assessment situations NOTE: Whilst 3-legged jack ups preload by taking water ballast on board, jack ups with 4 or more legs typically achieve foundation preload by carrying the hull weight on pairs of legs in turn; this procedure is known as pre-driving and generally does not require the addition of water ballast. For the purposes of this document no distinction is made between preload and pre drive. |
| preload reaction preload reaction, VLo | 3.69 | ISO 19905-1 | maximum of the vertical reactions, under each spudcan, required to support the in-water weight of the jack-up during the entire preloading operation NOTE 1: The in-water weight is: the full weight of the hull, variable load and preload ballast; plus the legs and spudcans and any contained water; less the water buoyancy of the legs and spudcans (calculated from their external dimensions). Soil buoyancy and the weight of any soil backfill above the spudcan are neglected. Care needs to be taken when accounting for water contained in the spudcan (in some cases this could be included in the quoted leg weight). NOTE 2: This is the maximum reaction that would be obtained during preloading if the jack-up were installed on a solid rock foundation. |
| punch-through | 3.70 | ISO 19905-1 | rapid uncontrolled vertical leg movement due to soil failure in strong soil overlying weak soil |
| quasi-static | 3.71 | ISO 19905-1 | static representation of a dynamic process NOTE: In some cases the influence of structural accelerations can be approximated by using an equivalent inertial loadset. |
| rack phase difference RPD | 3.72 | ISO 19905-1 | relative position of leg chords within a leg measured along the axis of the chords |

| Term | Ref | Standard | Definition |
|-------------------------------------|------|-------------|---|
| redundancy | 3.73 | ISO 19905-1 | ability of a structure to find alternative load paths following failure of one or more non-critical components, thus limiting the consequences of such failures NOTE: All structures having redundancy are statically indeterminate. [ISO 19902:2007] |
| regulator | 3.74 | ISO 19905-1 | authority established by a national governmental administration to oversee the activities of the offshore oil and natural gas industries within its jurisdiction, with respect to the overall safety to life and protection of the environment NOTE 1: The term regulator can encompass more than one agency in any particular territorial waters. NOTE 2: The regulator can appoint other agencies, such as marine classification societies, to act on its behalf, and in such cases the term regulator within this document includes such agencies. NOTE 3: Within this document the term regulator does not include any agency responsible for approvals to extract hydrocarbons, unless such agency also has responsibility for safety and environmental protection. [ISO 19902:2007] |
| Representative representative value | 3.75 | ISO 19905-1 | value assigned to a basic variable for verification of a limit state [ISO 19900:2002] |
| return period | 3.78 | ISO 19905-1 | average period between occurrences of an event or of a particular value being exceeded NOTE: The offshore industry commonly uses a return period measured in years for environmental events. The return period in years is equal to the reciprocal of the annual probability of exceedence of the event. [ISO 19901-1:2005] |
| scatter diagram | 3.79 | ISO 19905-1 | joint probability of two or more (metocean) parameters NOTE: A scatter diagram is especially used with wave parameters in the metocean context, see ISO 19901-1 subclause A.5.8. The wave scatter diagram is commonly understood to be the probability of the joint occurrence of the significant wave height (Hs) and a representative period (Tz or Tp). [ISO 19901-1:2005] |
| scour | 3.80 | ISO 19905-1 | removal of seabed material from the foundation due to current and waves |
| sea state | 3.83 | ISO 19905-1 | condition of the sea during a period in which its statistics remain approximately constant NOTE: In a statistical sense the sea state does not change markedly within the period. The period during which this condition exists is usually assumed to be three hours, although it depends on the particular weather situation at any given time. [ISO 19901-1:2005] |
| shallow gas | 3.84 | ISO 19905-1 | gas pockets or entrapped gas below impermeable layers at shallow depth |

| Term | Ref | Standard | Definition |
|--|------|-------------|--|
| significant wave height | 3.87 | ISO 19905-1 | <p>statistical measure of the height of waves in a sea state</p> <p>NOTE: The significant wave height was originally defined as the mean height of the highest one-third of the zero upcrossing waves in a sea state. In most offshore data acquisition systems the significant wave height is currently taken as $4\sqrt{m_0}$ (where m_0 is the zeroth spectral moment, see ISO 19901-1 definition 3.31) or 4σ, where σ is the standard deviation of the time series of water surface elevation over the duration of the measurement, typically a period of approximately 30 minutes.</p> <p>[ISO 19901-1:2005]</p> |
| skirted spudcan | 3.88 | ISO 19905-1 | a spudcan with a peripheral skirt |
| slant-leg unit | 3.89 | ISO 19905-1 | <p>jack up with legs that can be inclined at a significant angle to the vertical</p> <p>NOTE: The inclination angle is typically about 5 degrees. The benefit is that the jack up behaves more like a braced frame and less like a portal frame, with accompanying reductions in leg axial forces and moments.</p> |
| sliding | 3.90 | ISO 19905-1 | horizontal movement of a spudcan |
| special survey | 3.92 | ISO 19905-1 | <p>extensive and complete survey carried out at each nominal five year interval which closes a cycle of annual classification and mandatory surveys</p> <p>NOTE: Also referred to as 'renewal survey' by some IACS members.</p> |
| spectral density function energy density function spectrum | 3.93 | ISO 19905-1 | <p>measure of the variance associated with a time-varying variable per unit frequency band and per unit directional sector</p> <p>NOTE 1: Spectrum is a shorthand expression for the full and formal name of spectral density function or energy density function.</p> <p>NOTE 2: The spectral density function is the variance (the mean square) of the time-varying variable concerned in each frequency band and directional sector. Therefore the spectrum is in general written with two arguments: one for the frequency variable and one for a direction variable.</p> <p>NOTE 3: Within this document the concept of a spectrum applies to waves, wind turbulence and action effects (responses) that are caused by waves or wind turbulence. For waves, the spectrum is a measure of the energy traversing a given space.</p> <p>[ISO 19901-1:2005]</p> |
| spectral peak period | 3.94 | ISO 19905-1 | <p>period of the maximum (peak) energy density in the spectrum</p> <p>NOTE: In practice there is often more than one peak in a spectrum.</p> <p>[ISO 19901-1:2005]</p> |
| spudcan | 3.95 | ISO 19905-1 | structure at the base of a leg supported by the soil |
| squeezing | 3.96 | ISO 19905-1 | lateral movement of weak soil between the spudcan base and an underlying stronger layer or of weak soil between two stronger layers |

| Term | Ref | Standard | Definition |
|--|-------|-------------|---|
| stochastic analysis | 3.99 | ISO 19905-1 | analysis in which a probabilistic approach is taken to model the random nature of the variables of interest NOTE: In general, a linear(ized) stochastic analysis can be performed in the frequency domain or in the time domain whereas non-linear stochastic analysis can only be performed by time domain simulations. This document does not support frequency domain stochastic analysis. |
| stress concentration factor SCF | 3.100 | ISO 19905-1 | factor relating a nominal stress to the local stress at a detail [ISO 19902:2007] |
| structural analysis | 3.101 | ISO 19905-1 | process or algorithm for determining action effects from a given set of actions NOTE 1: Structural analyses are performed at three levels (global analysis of an entire structure, analysis of part of a structure e.g. a leg, local analysis of a structural member and local analysis of a structural component) using different structural models. NOTE 2: Adapted from ISO 19902:2007 definition 3.51 |
| structural component component | 3.102 | ISO 19905-1 | physically distinguishable part of a member cross-section of uniform yield strength NOTE: The cross-section of a non-tubular member is usually comprised of several structural components. A component consists of only one material. Where a plate component is reinforced by another piece of plating, the reinforcement may be of a different yield strength. See also further discussion in A.12.1.1. |
| structural member member or leg of a non-truss leg jack up | 3.103 | ISO 19905-1 | physically distinguishable part of a braced structure connecting two joints NOTE: See also further discussion in A.12.1.1. |
| sustained wind speed | 3.104 | ISO 19905-1 | time averaged wind speed with a defined averaging duration of one minute or longer Note: In ISO 19901-1:2005 definition 3.33 references a duration of "ten minutes or longer" |
| sudden hurricane sudden cyclone sudden typhoon | 3.?? | ISO 19905-1 | sudden tropical revolving storm which forms near the site and can affect the jack up before demanning can be completed within the time required by the emergency evacuation plan NOTE: The intent is that the jack up will be assessed to L1 for the specified sudden tropical revolving storm. |
| undrained shear strength | 3.105 | ISO 19905-1 | maximum shear stress at yielding or at a specified maximum strain in an undrained condition NOTE: Adapted from ISO 19901-4:2003 definition 3.9 << are we adapted as a result of deleting the 19901-4 Note ? >>. |

| Term | Ref | Standard | Definition |
|--|-------|-------------|--|
| Utilization member utilization foundations utilization | 3.106 | ISO 19905-1 | (maximum value of the) ratio of the generalized representation of the assessment action effect to the generalized representation of the assessment resistance in compatible units NOTE 1: The utilization is the maximum absolute value of the ratio for each limit state and assessment situation being considered. NOTE 2: Only utilizations smaller than or equal to 1.0 satisfy the assessment criteria for a particular limit state. NOTE 3: The assessment action effect is the response to the factored actions. The assessment resistance is the representative resistance divided by the partial resistance factor. NOTE 4: For members and foundations subjected to combined forces, the internal force pattern and the resistance combine into an interaction equation. If the interaction equation governing the assessment check is, or can be, reduced to an inequality of the form $I \leq 1.0$ the utilization is equal to I. NOTE 5: Adapted from ISO 19902:2007, definition 3.57. |
| variable load | 3.107 | ISO 19905-1 | items carried by the jack up to support its operation that are not included in the fixed load |
| water depth | 3.108 | ISO 19905-1 | vertical distance between the sea floor and still water level NOTE 1: As there are several options for the still water level (see A.6.4.4) there can be several water depth values. Generally assessment water depth is determined to the extreme still water level. NOTE 2: The water depth used for calculating wave kinematics varies between the maximum water depth of the mean high water spring tide plus a positive storm surge, and the minimum water depth of the mean low water spring tide less a negative storm surge, where applicable. NOTE 3: Adapted from ISO 19901-1:2005, definition 3.41. |
| working stress | 3.109 | ISO 19905-1 | to be defined if and when required by Dave |
| abnormal (accidental) action | 3.1 | ISO 19906 | action that is unlikely to occur with a significant value on a given structure over a given reference period NOTE Accidental actions are in most cases of short duration. |
| abnormal (accidental) limit state ALS | 3.2 | ISO 19906 | exceedance of resistance by abnormal actions |
| abrasion | 3.3 | ISO 19906 | effect of ice grinding against the surface of a structure removing paint, surface protrusions and coatings, oxydized material, or concrete particles and aggregate |
| accidental situation | 3.4 | ISO 19906 | exceptional condition of use or exposure for the structure NOTE Exceptional conditions include fire, explosion, impact or local failure. |
| action | 3.5 | ISO 19906 | external load applied to the structure (direct action) or an imposed deformation or acceleration (indirect action) [ISO 19900:2002] |

| Term | Ref | Standard | Definition |
|--------------------------------|------|-----------|--|
| action combination | 3.6 | ISO 19906 | design values of the different actions considered simultaneously in the verification of a specific limit state |
| action effect | 3.7 | ISO 19906 | effect of actions on the structure or its components |
| adfreeze | 3.8 | ISO 19906 | freezing of ice to the surface of a structure |
| alert | 3.9 | ISO 19906 | prescribed reaction to specific ice conditions, which in time can become hazardous to the operation of a structure NOTE Several different levels associated with the time proximity of the hazard are normally recognized. |
| aspect ratio | 3.10 | ISO 19906 | ratio of structure diameter or width to ice thickness |
| broken ice | 3.11 | ISO 19906 | loose ice consisting of small floes, broken up as a result of natural processes, active or passive intervention |
| characteristic value | 3.12 | ISO 19906 | value assigned to a basic variable associated with a prescribed probability of not being violated by unfavourable values during some reference period [ISO 19900:2002] NOTE For actions, the characteristic value is the main representative value. In some design situations a variable can have two characteristic values, an upper and a lower value. |
| companion environmental action | 3.13 | ISO 19906 | environmental action applied simultaneously with the principal environmental action |
| consequence category | 3.14 | ISO 19906 | classification system for identifying the environmental, economic and indirect personnel safety consequences of failure of a platform [ISO 19902:2007] |
| consolidated layer | 3.16 | ISO 19906 | portion of an ice ridge keel, rubble pile rubble field or stamukha below the water line formed by the ice consolidation process |
| consolidation | 3.15 | ISO 19906 | process of freezing of pore water in voids within ice rubble, between floes, or between soil particles NOTE For soils, involves drainage of pore fluid as a result of overburden pressures. |
| design action | 3.17 | ISO 19906 | action combination resulting from factored representative actions associated with an AL or EL event |
| design resistance | 3.18 | ISO 19906 | resistance calculated from factored characteristic material properties or from factored resistance based on unfactored characteristic material properties |
| design service life | 3.19 | ISO 19906 | assumed period for which a structure or a structural component is to be used for its intended purpose with anticipated maintenance but without substantial repair being necessary NOTE Adapted from ISO 19900:2002, definition 2.12. |
| design value | 3.20 | ISO 19906 | value derived from the representative value for use in the design verification procedure |
| disconnection | 3.21 | ISO 19906 | planned separation of the risers (and mooring, if applicable) from a floating structure |

| Term | Ref | Standard | Definition |
|-------------------------|------------|-----------------|---|
| ductility | 3.22 | ISO 19906 | ability of a material to deform and absorb energy beyond its elastic limit or ability of an component to sustain load beyond yield NOTE See also system ductility. |
| dynamic action | 3.23 | ISO 19906 | action that induces acceleration of a structure or a structural component of a magnitude sufficient to require specific consideration [ISO 19901-7:2005] |
| dynamic positioning | 3.24 | ISO 19906 | technique of automatically maintaining the position of a floating vessel within a specified tolerance by controlling onboard thrusters to counter the wind, wave, current and ice actions |
| emergency disconnection | 3.25 | ISO 19906 | planned separation of the risers (and mooring, if applicable) from a floating structure, without depressurization of the risers |
| escape | 3.26 | ISO 19906 | act of personnel moving away from a hazardous event to a place on the installation where its effects are reduced or removed |
| evacuation | 3.27 | ISO 19906 | planned precautionary and emergency method of moving personnel from the installation (muster station or TR) to a safe distance beyond the immediate or potential hazard zone where medical treatment can be provided |
| exposure level | 3.28 | ISO 19906 | classification system used to define the requirements for a structure based on consideration of life-safety and of environmental and economic consequences of failure [ISO 19900:2002] |
| first-year ice FY | 3.29 | ISO 19906 | sea ice formed during the current winter that has not survived one summer melt season |
| floe | 3.30 | ISO 19906 | relatively flat piece of sea ice greater than 20 m across NOTE There are typically sub-categories: small (20 to 100m across, medium (100 to 500 m across), big (500 to 2000 m across), vast (2 to 10 km across) and giant (greater than 10 km across). |
| flowline | 3.31 | ISO 19906 | pipng on the sea floor linking one or more subsea wells to the production system NOTE functions may include production, injection, subsea systems control and export of produced fluids. |
| freeboard | 3.32 | ISO 19906 | vertical distance from the water surface to the top of the ice NOTE Also vertical distance from the mean water surface at a given draught to the deck level, measured at the lowest point where water can enter the structure or ship. |
| freeze-thaw | 3.33 | ISO 19906 | possible degrading effect on concrete of repeated temperature changes causing frost cycles at the surface |
| glory hole | 3.34 | ISO 19906 | man-made areal excavation in the seabed used to protect a subsea installation or its components from ice damage |

| Term | Ref | Standard | Definition |
|-----------------------|------------|-----------------|--|
| ice alert | 3.35 | ISO 19906 | alert related to encroaching hazardous ice features or conditions, generally associated with specific changes to production operations |
| ice detection | 3.37 | ISO 19906 | discrimination of ice features or associated conditions from the surrounding environment |
| ice gouge | 3.38 | ISO 19906 | incision made by an ice feature in the seabed NOTE Also called ice scour; a pit is an areal incision and a furrow is a linear incision made by ice in the seabed |
| ice island | 3.39 | ISO 19906 | large tabular shaped ice feature that has calved from an ice shelf or glacier |
| ice management | 3.40 | ISO 19906 | active processes used to alter the ice environment with the intent to reduce the frequency, severity or uncertainty of ice actions |
| ice management plan | 3.41 | ISO 19906 | description of the ice environment in the context of alert procedures, the ice management system and a detailed plan, including individual responsibilities, for the implementation of the ice management system |
| ice management system | 3.42 | ISO 19906 | ice management, and associated ice detection and threat evaluation tools used for its implementation |
| ice ridge | 3.43 | ISO 19906 | linear feature formed of ice blocks created by the relative motion between ice sheets NOTE A compression ridge is formed when ice sheets are pushed together and a shear ridge is formed when ice sheets slide along a common boundary. |
| ice scenario | 3.44 | ISO 19906 | combination of circumstances involving the presence of ice, resulting in actions or action combinations on a structure |
| iceberg | 3.36 | ISO 19906 | glacial or shelf ice (greater than 5 m freeboard) that has broken (calved) away from its source NOTE Icebergs can be freely floating or grounded, and are sometimes defined as tabular, dome, pinnacle, wedge or blocky shaped. |
| infill | 3.45 | ISO 19906 | material deposited into an ice scour, excavation or trench through natural processes |
| landfast ice | 3.46 | ISO 19906 | ice that remains attached to a shoreline, island or grounded ice feature NOTE Also called fast ice. |
| level ice | 3.47 | ISO 19906 | region of ice with relatively uniform thickness NOTE Also called sheet ice. |
| life-safety category | 3.48 | ISO 19906 | classification system for identifying the applicable level of life-safety for a platform [ISO 19902:2007] |
| local failure | 3.49 | ISO 19906 | localized damage to the structure with the potential for escalating to partial or to complete failure |

| Term | Ref | Standard | Definition |
|--|------------|-----------------|---|
| lowest anticipated service temperature LAST | 3.50 | ISO 19906 | minimum hourly average air temperature associated with a 10-2 annual probability level |
| mat | 3.51 | ISO 19906 | man-made weighted sheet used for the stabilization of soils or subsea components |
| material factor | 3.52 | ISO 19906 | partial safety factor applied to the characteristic value of a material property |
| multi-year ice MY | 3.53 | ISO 19906 | sea ice that has survived at least one summer melt season NOTE when the term multi-year ice is used in conjunction with the term second-year ice, the former should be interpreted as ice that has survived at least two summer melt seasons |
| offshore installation manager OIM | 3.54 | ISO 19906 | person responsible for the installation, and all operations on and around a structure |
| owner | 3.55 | ISO 19906 | individual or organization responsible for the design, construction, commissioning, and operation of the structure |
| pack ice | 3.56 | ISO 19906 | sea ice consisting of discrete floes that is not landfast |
| pack ice driving actions | 3.57 | ISO 19906 | actions exerted by the surrounding sea ice on the structure or to an ice feature in contact with it |
| permafrost | 3.58 | ISO 19906 | ground (soil or rock) remaining at or below 0 °C for at least two consecutive years |
| place of safety | 3.59 | ISO 19906 | area outside the hazard zone in which personnel safety is no longer at risk due to the installation hazard |
| polynya | 3.60 | ISO 19906 | areal opening in sea ice, generally containing ice of thickness less than 30 cm |
| rafted ice | 3.61 | ISO 19906 | ice feature formed from the superposition of two or more ice sheet layers |
| recognized classification society RCS | 3.62 | ISO 19906 | member of the International Association of Classification Societies (IACS), with recognized and relevant competence and experience in offshore structures, and with established rules and procedures for classification/certification of installations or for ice management vessels used in the petroleum and natural gas activities |
| recovery | 3.63 | ISO 19906 | transfer of evacuees to a rescue vessel, helicopter, etc. |
| reliability target | 3.64 | ISO 19906 | specified average annual probability associated with failure |
| representative value | 3.65 | ISO 19906 | value assigned to a basic variable for verification of a limit state [ISO 19900:2002] |
| rescue | 3.66 | ISO 19906 | process by which persons entering the sea or reaching the ice surface, directly or in an evacuation craft, are subsequently retrieved to a place where medical assistance is typically available |

| Term | Ref | Standard | Definition |
|--------------------------------|------------|-----------------|---|
| ridge keel | 3.67 | ISO 19906 | portion of an ice ridge that extends below the water line NOTE A ridge keel can consist of a consolidated layer and an unconsolidated layer. |
| ridge sail | 3.68 | ISO 19906 | portion of an ice ridge that extends above the water line |
| rubble field | 3.69 | ISO 19906 | region of broken ice blocks floating together as a continuous body |
| rubble pile | 3.70 | ISO 19906 | ice feature of areal, rather than linear extent, composed of blocks of broken ice NOTE Term for grounded rubble piles is stamukha. |
| safety critical element SCE | 3.71 | ISO 19906 | item of equipment, procedure or structure whose failure could lead to a major accident or whose purpose is to prevent or limit the consequences of a major accident |
| scour | 3.72 | ISO 19906 | soil erosion caused by wave, ice or current action |
| sea floor | 3.74 | ISO 19906 | interface between the sea and the seabed NOTE Refers to the upper surface of all unconsolidated material, also termed mudline. |
| seabed | 3.73 | ISO 19906 | material below the elevation of the sea floor or ocean floor |
| seasonal operation | 3.75 | ISO 19906 | operation of a structure during a selected period during the course of the year, generally to avoid particular ice conditions |
| second-year ice | 3.76 | ISO 19906 | sea ice that has survived one summer's melt season NOTE "second- year ice" is sometimes referred to as "multi-year ice" |
| shelf ice | 3.77 | ISO 19906 | sea ice formed adjacent to a glacier terminating in the ocean |
| stamukha | 3.78 | ISO 19906 | grounded ice feature composed of broken ice pieces or rubble |
| station bill | 3.79 | ISO 19906 | posted list showing the duties and duty stations of designated personnel on the installation with emergency response organization roles and responsibilities |
| strudel scour | 3.80 | ISO 19906 | incision in the seabed caused by a natural water jet draining through holes in the ice NOTE Usually found in river deltas when fresh water flows on the surface of sea ice. |
| system ductility | 3.81 | ISO 19906 | ability of a structure to deform and dissipate energy, taking account material ductility, the ability of structural components to maintain inelastic load carrying capacity and structural redundancy |
| temporary refuge TR | 3.82 | ISO 19906 | place provided on the installation where personnel can take refuge for a predetermined period while investigations, emergency response and evacuation preparations are undertaken |

| Term | Ref | Standard | Definition |
|----------------------|------------|-----------------|--|
| unconsolidated layer | 3.83 | ISO 19906 | part of an ice ridge keel found below the consolidated layer that consists of unbonded or very weakly bonded ice blocks NOTE Also called unconsolidated rubble layer. |
| upheaval buckling | 3.84 | ISO 19906 | buckling of a conductor or buried pipe due to soil deformations NOTE This is generally induced by changes to the permafrost. |