

Offshore classification

April 2016 editions of:

- DNVGL rules for classification – offshore units
- DNVGL Offshore standards

Offshore classification - Technology & Service Development

Overview – update for rules

The below list provides an overview on the presented rule updates, it's applicability for newbuilds (NB) and/ or units in operation (iO)

Description	Affected documents	NB	iO
Update of offshore class Crane requirements	OU-0101, -0102 and 0103	X	X
Update of FPSO mooring iO survey requirements	OU-0102 and -0103		X
Updates to bottom survey and associated items	OU-0101, -0102, -0103 and -0104		X
Update well intervention (nb/io) + welltest equipment survey	OU-0101	X	X
General update of rules for classification of offshore units	OU-0101, -0102, -0103 and -0104	X	X
NEW RENEW - notation on system upgrades/ life time extensions	OU-0101 and -0104		X
Update of mooring requirements for Drilling and support units. Introduce new notation ME (position) mooring equipment.	OU-0101	X	X
Updates to alternative survey arrangements	OU-0101		X

- **DNVGL-RU-OU-0101** Offshore drilling and support units
- **DNVGL-RU-OU-0102** Floating production, storage and loading units
- **DNVGL-RU-OU-0103** Floating LNG/LPG production, storage and loading units
- **DNVGL-RU-OU-0104** Self-elevating units

DNVGL-RU-OU-0101, DNVGL-RU-OU-0102 and DNVGL-RU-OU-0102

Update of Crane notation requirements

Opportunity and incentive (Why)

- **Crane** notation in Offshore Class Rules refers to SHIP rules for technical contents
- Introduction of new separate certification standards for ship cranes and offshore cranes (ST-0377 & 0378) means that contents of Crane notation for offshore will be different from ship

Scope of work (What)

- Re-named notation to **Crane-offshore**
- Updated content to new DNV GL service document structure
- Included relevant parts of the Rules for ships in document instead of referring
- Defined specific offshore iO-survey requirements
- Updates applicable for OU-0101, OU-0102 and OU-0103

Safety/value delivered/market benefit (Impact)

- Focusing on specific MOU requirements independent from SHIP rules
- More efficient and consistent service

NB: register will be updated for all MOU units with CRANE



Proposal No.	2015-542
Service Line	Offshore classification
Contacts	Ole-Henrik Andressen, Michiel van der Geest
Publication date	April 2016
Entry into force	October 2016

DNVGL-RU-OU-0102 and DNVGL-RU-OU-0103

Update of position mooring io survey requirements

Opportunity and incentive

- Several recent incidents with position mooring systems
- Experienced weaknesses with today's position mooring survey execution
- Information and knowledge as established in recent JIP's

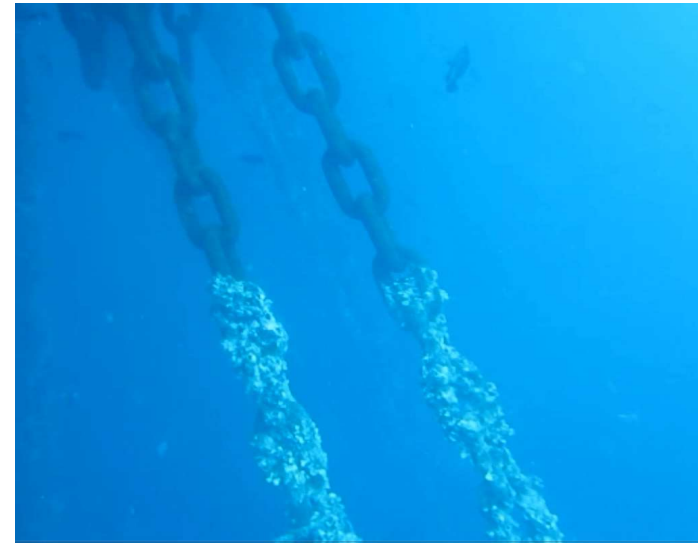
Scope of work

The information and knowledge from latest JIPs, and the DNVGL fleet of long term moored units combined with current industry best practise is incorporated, including:

- More specific survey requirements addressing known "failure mechanisms".
- Increased owner responsibility to document inspections and record baselines;
- Allowing for incorporating Mooring Integrity Management programs based on e.g. the new DNVGL Recommended Practise for Mooring Integrity Management (to be released in 2016)
- Updates applicable for OU-0102 and OU-0103.

Value delivered

- Improved quality of survey, addressing the industry challenges for position mooring integrity and thereby increasing safety.



Proposal No.	2015-554
Service Line	Offshore classification
Contacts	Dag-Børre Lillestøl
Publication date	April 2016
Entry into force	October 2016

DNVGL-RU-OU-0101, DNVGL-RU-OU-0102, DNVGL-RU-OU-0103 and DNVGL-RU-OU-0104

Updates to bottom survey and associated items

Opportunity and incentive (Why)

- Unclear definitions of border between the (statutory) bottom survey, main class scope and (for self-elevating units) the inspection of lower leg and spudcan.

Scope of work (What)

- Refine required scope for bottom survey acc. to MODU code.
- Distinguish between class and statutory survey requirements.
- The proposal affects all the Rules for classification of offshore units, i.e. OU-0101, -0102, 0103 and 0104.

Safety/value delivered/market benefit (Impact)

- Cost saving and added flexibility for Rig-owners wrt. in-service inspection.



Proposal No.	2016-005
Service Line	Offshore classification
Contacts	Sigmund Røine, Dag-Erling Engberg
Publication date	April 2016
Entry into force	October 2016

Update well intervention (NB/IO) + well test equipment survey

Opportunity and incentive (Why)

- No specific and well defined requirements for Well Intervention (WI).
- More focus on Well test equipment survey as part of notations **Drill** and **Well**.
- Experienced challenges in covering well test equipment as often placed temporary on board.

Scope of work (What)

- Re-use requirements of **Drill** notation to complete the requirements for **Well** notation.
- More details about Well Test Equipment survey in line with new Offshore Technical Guide on subject (about to be published).

Safety/value delivered/market benefit (Impact)

- Clear defined rule requirements for WI in line with **Drill**.
- More focus on approved WTE installation. Clear definition of survey scope.



Proposal No.	2016-006
Service Line	Offshore classification
Contacts	Geir Vassdal; Joar Håland
Publication date	April 2016
Entry into force	October 2016

DNVGL-RU-OU-0101, DNVGL-RU-OU-0102, DNVGL-RU-OU-0103 and DNVGL-RU-OU-0104

General updates

Opportunity and incentive (Why)

- Unclear status of subcontracted parts during new-building.
- Availability of more sophisticated design information on structure.
- Desire to further improve the efficiency of Offshore class services.

Scope of work (What)

- Clarification of the status of large sub-contracted parts for NB like JU-legs, top-side modules etc.
- Further development of the unit specific In-service Inspection program (IIP) for MOUs.
- Correction of some minor issues.
- The proposal affects all the Rules for classification of offshore units, i.e. OU-0101, -0102, 0103 and 0104.

Safety/value delivered/market benefit (Impact)

- More effective control of sub-contracted parts of NB projects
- More sophisticated in-service inspection taking into account knowledge and insights for refining inspection scope.
- More effective and efficient service delivery in general.



Proposal No.	2016-007
Service Line	Offshore classification
Contacts	Sigmund Røine; Joar Håland; Michiel van der Geest
Publication date	April 2016
Entry into force	October 2016

New RENEW - notation on system upgrades/ life time extensions

Opportunity and incentive (Why)

- Class service as per today lacks follow up of life time extension/ system upgrades.
- Owners making a considerable investment in the upgrade of their units have a challenge in demonstrating the result.

Scope of work (What)

- The notation/ proposal covers the following:
 - Structure: reassessment on ULS, FLS, and requiring upgrades to structure and corrosion protection as applicable.
 - Upgrade of safety systems to latest standards.
 - Assessment and upgrades on jacking systems.

Safety/value delivered/market benefit (Impact)

- The notation defines a baseline to which upgrade projects should comply.
- Supporting an owner in making clear the result of their upgrade investments.



Proposal No.	2016-008
Service Line	Offshore classification
Contacts	Amarendra Kumar, Sigmund Røine, Michiel van der Geest
Publication date	April 2016
Entry into force	October 2016

Update of requirements for position mooring

Opportunity and incentive (Why)

- Present rules are unclear on our follow up for position mooring equipment for units without **POSMOOR** notation

Scope of work (What)

- Introduction of new notation **ME** (position) mooring equipment, covering certification of mooring equipment and testing of safety functions
- Differentiating more clearly between temp. mooring and positioning mooring.
- Removed intermediate survey related to mooring.
- Further improved description of in operation survey req.

Safety/value delivered/market benefit (Impact)

- Clear definition of follow-up of mooring equipment to deliver in line with market expectations
- More efficient and effective in-Operation survey requirements increasing safety

NB: register will be updated for all applicable MOU units. Detailed information on this administrative update shall follow



Proposal No.	2016-009
Service Line	Offshore classification
Contacts	D.B. Lillestol, T. Sæthre
Publication date	April 2016
Entry into force	October 2016

DNVGL-RU-OU-0101, DNVGL-RU-OU-0102 and DNVGL-RU-OU-0103 Updates to alternative survey arrangements

Opportunity and incentive (Why)

- Industry is looking for Planned Maintenance Approached, moving beyond OEM recommendations.
- Present PMS-RCM is perceived as being too complex, requiring a too high level of detailed analyses.

Scope of work (What)

- Introducing three different levels of sources for establishing maintenance tasks (RCM, OEM rec and operational experience).
- Specifying more details wrt procedural/ documentation requirements and use the IEC 60300-3-11 standard on RCM as guidance only.
- Introducing Maintenance concepts (MC).
- Updates applicable for OU-0101, OU-0102 and OU-0103.

Safety/value delivered/market benefit (Impact)

- More flexible and efficient survey arrangement.
- More guidance wrt maintenance management.
- Possibility to further improve maintenance schemes.



Proposal No.	2016-010
Service Line	Offshore classification
Contacts	Joar Håland
Publication date	April 2016
Entry into force	October 2016

Overview update of offshore standards

Description	Affected documents
New offshore standard on Human comfort	DNVGL-OS-A301
Update OS-C101 and C201 (general) design requirements for offshore structures	DVNGGL-OS-C101 and -C201
Updates structural design requirements self-elevating units	DNVGL-OS-C104 and -C201
Update of OS-E303 Fibre ropes	DNVGL-OS-E303
Major update of OS-E403 Single point mooring	DNVGL-OS-E403

DNVGL-OS-A301

Human comfort

Opportunity and incentive

- MoU owners and operators have requested DNV GL regulations covering the working environment on board offshore facilities.
- Use of standardized methods and rules may be most efficient.
- The rules shall contribute to avoid misinterpretations and disagreements. If there will be any, DNV GL will decide. DNV GL shall also accept or deny non-compliant issues.
- Compliance with rules shall be demonstrated by measurements.

Scope of work

This is a new offshore classification standard covering the following:

- Noise & vibration
- Illumination & indoor climate

The standard describes how a follow-up as part of class is arranged with the introduction of the new notation COMF-MOU.

Safety/value delivered/market benefit

- Simplify the contract work for the owner and serve as a set of specifications.
- Cover the most common international/national rules.
- Act as a tool in the process of creating a well-defined working environment on board.
- Documenting partial compliance to NORSOK-S002 for units operation on the Norwegian Continental Shelf.



Proposal No.	2015-555
Service Line	Offshore classification
Contacts	Michiel van der Geest, Per Henning Flatmoe
Publication date	April 2016
Entry into force	October 2016 for class, immediate entry into force for non-class

DNVGL-OS-C101 and DNVGL-OS-C201

Updates design of offshore steel structures

Opportunity and incentive (Why)

- General updating in accordance with practice.

Scope of work (What)

- Updating references
- Material designation updated
- New shear area req. for beams and stiffeners
- Accidental events clarified
- New section made containing:
 - Crane pedestal and foundations for lifting appl.
 - Bolt connections (moved from previous section 4)
 - OU-0104 will be updated where applicable to stay aligned with the standards.

Safety/value delivered/market benefit (Impact)

- Clarifying/updating requirements improving traceability and effectiveness of design approval.



Proposal No.	2015-124
Service Line	Offshore classification
Contacts	Rune Jacobsen, Per Gjerde
Publication date	April 2016
Entry into force	October 2016 for class, immediate entry into force for non-class

DNVGL-OS-C104 and DNVGL-OS-C201

Updates structural design requirements self-elevating units

Opportunity and incentive (Why)

- General updating in accordance with practice.
- Further alignment with industry standards.

Scope of work (What)

- Updating references
- Use of E690 steel for rack and split tubes
- Accidental events clarified
- Planned operation criteria introduced
- Preload capacity methodology updated
- DFF tables for wrt access, repair and conseq.
- Airgap requirements clarified
- OU-0104 will be updated where applicable to stay aligned with the standards

Safety/value delivered/market benefit (Impact)

- Clarifying requirements ensuring a more efficient follow up and updated requirements meeting of market expectations.



Proposal No.	2015-541
Service Line	Offshore classification
Contacts	Rune Jacobsen, Knut Olav Schou
Publication date	April 2016
Entry into force	October 2016 for class, immediate entry into force for non-class

DNVGL-OS-E303

Offshore fibre ropes – general update

Opportunity and incentive

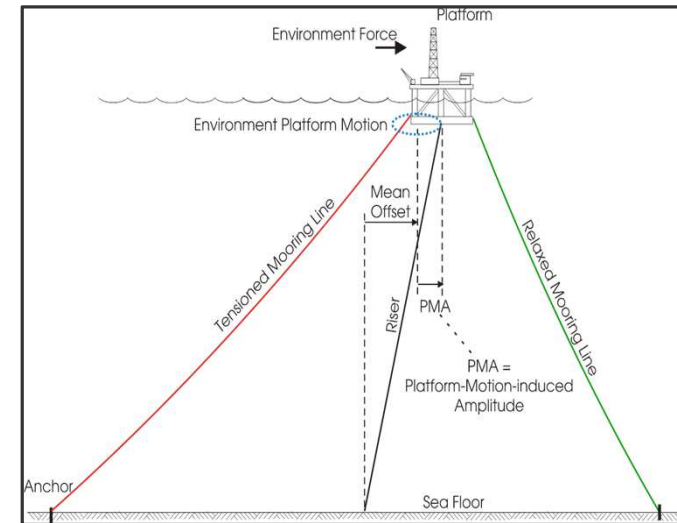
- Alignment with the newly published DNVGL-RP-E305.
- Improved explanation of role responsibilities from alignment with updated OS-E407.

Scope of work

- Add explanation of the basic principle for achieving reliability in service.
- Emphasise role responsibilities and agreement between suppliers and recipients.
- Restructuring and general improvements.

Safety/value delivered/market benefit

- Certification now based solely on rope manufacturer documentation (independent of final customer), providing for a more efficient process
- Included follow-up of certification in operational phase (for non-class purposes only).
- General updates to improve completeness and readability.
- Implemented flexibility w.r.t. interchanging of hardware and rope segments from different deliveries.



Proposal No.	2015-487
Service Line	Offshore classification
Contacts	Vidar Åhjem
Publication date	April 2016
Entry into force	October 2016 for class, immediate entry into force for non-class

DNVGL-OS-E403

Offshore loading units – major update

Opportunity and incentive

- Update and align with other DNVGL standards and industry practice.

Scope of work

- Certification requirements have been removed and now refer to other applicable standards.
- Increased coverage of the standard by include several types of loading units.
- Clean up standard for better readability.

OU-0102 shall be updated to stay aligned with the proposal.

Safety/value delivered/market benefit

- A better readable and a more up to date standard which includes more types of loading units, not only loading buoys leading in its turn to more efficient NB projects.



Proposal No.	2015-491
Service Line	Offshore classification
Contacts	Erik Carlberg
Publication date	April 2016
Entry into force	October 2016 for class, immediate entry into force for non-class

Please contact us for any questions

Offshore classification – Technology & Service Development

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