(Draft)

Amended MOU/MODU Rules

(Part 2 Classification and Surveys)

(for external opinion inquiry)

Dec. 2020

Hull Rule Development Team

- Main Amendments -

(1) Effective date : 1 July 2021 (The contract date for ship construction)

◉ To reflect the revision of IACS Z28(New Oct 2020)

- A global unified standard is required to improve the installation and maintenance of Pressure-Rated MCT/Transit systems.

- In order to properly maintain MOU structures and promote vessel safety during water ingress, a better method is necessary to document and manage installation, maintenance, and repair of MCT/Transit systems.

(1) Effective date : 1 July 2021

(The contract date for ship construction)

Present	Amendment	Note
CHAPTER 2 CLASSIFICATION AND SURVEYS **Section 1 General 〈omitted〉** **Section 2 Classification** **201. ~ 203. 〈omitted〉** **204. Classification Survey during Construction** **1. ~ 3. 〈omitted〉** **4. Tests** At the Classification Survey during Construction, hydrostatic tests, leak tests, hose tests and performance tests, etc are to be carried out in accordance with the relevant requirements of this Rules. 〈newly added〉	**CHAPTER 2 CLASSIFICATION AND SURVEYS** **Section 1 General 〈same as the current Guidances〉** **Section 2 Classification** **201. ~ 203. 〈same as the current Guidances〉** **204. Classification Survey during Construction** **1. ~ 3. 〈same as the current Guidances〉** **4. Tests** At the Classification Survey during Construction, hydrostatic tests, leak tests, hose tests and performance tests, etc are to be carried out in accordance with the relevant requirements of this Rules. In addition, the survey of watertight cable penetrations(bulkheads and decks) is to be in accordance with the following. *(2021)* **(1)** Surveys of Watertight Cable Transits *(2021)* (A) Watertight cable transits are to be installed and maintained in accordance with the manufacturer's requirements and in accordance with the requirements of the relevant Type Approval certification. (B) watertight cable transit seal systems should be inspected in accordance with item 8.6, Table 1 of Annex 1-12, Guidance Pt 1. **(C)** Cable Transit Seal Systems Register (a) A Cable Transit Seal Systems Register (Register) is to be provided by the shipbuilder for all watertight cable transits fitted to the vessel. For an example of a register see Appendix 1-12-4 "Recommendatory Sample - Cable Transit Seal Systems Register". The Register can be in either a hard copy or digitized media. It is to include a marking/ identification system, documentation referencing manufacturer manual(s) for each type of cable transit installed, the Type Approval certification for each type of transit system, applicable installation drawings, and a recording of each installed transit documenting the as built condition after final inspection in the shipyard. It is to include sections to record any inspection, modification, repair and maintenance.	A global unified standard is required to improve the installation & maintenance of Pressure-Rated MCT/Transit systems. To properly maintain Ship structures and promote vessel safety during water ingress, a better method is necessary to document and manage installation, maintenance, and repair of MCT/Transit systems. - reflected 1.2 of IACS UR Z28 (New, Oct 2020) - reflected 1.3 of IACS UR Z28 (New, Oct 2020) - reflected 2 & 2.1.1 of IACS UR Z28 (New, Oct 2020)

Present	Amendment	Note
	(b) The Register shall be reviewed by the attending Surveyor to confirm it contains a list of the watertight cable transits, applicable cable transit information and sections to maintain in-service maintenance and survey records.	- reflected 2.1.2 of IACS UR Z28
	(c) For manned vessels the Register is to be held onboard of the vessel or MOU. For unmanned vessels, if a suitable storage location does not exist onboard, the Register may be held ashore. The Register is to be readily available for the attending surveyor.	- reflected 2.1.3 of IACS UR Z28
	(D) For installation and maintenance of Watertight Cable Transits, it is to be confirmed that:	- reflected 3 of IACS UR Z28
	(a) Cable transits have been installed, and where disrupted have been reinstated, in accordance with the manufacturer's requirements and in accordance with the requirements of Type Approval.	
	(b) Where specified, appropriate specialized tools have been used.	

Present	Amendment	Note
Section 3 Surveys **301. General 〈omitted〉** **302. Annual Survey** **1. ~ 2. 〈omitted〉** **3. Hull, structure and equipment** At each Annual Survey the exposed parts of the hull, deck, deck house, structures attached to the deck, derrick substructure, including supporting structure, accessible internal spaces, and the applicable parts listed below are to be generally examined and placed in satisfactory condition as found necessary. ~. (1) All units (A) ~ (L) 〈omitted〉 〈newly added〉	**Section 3 Surveys** **301. General 〈same as the current Guidances〉** **302. Annual Survey** **1. ~ 2. 〈same as the current Guidances〉** **3. Hull, structure and equipment** At each Annual Survey the exposed parts of the hull, deck, deck house, structures attached to the deck, derrick substructure, including supporting structure, accessible internal spaces, and the applicable parts listed below are to be generally examined and placed in satisfactory condition as found necessary. ~. (1) All units (A) ~ (L) 〈same as current Rules〉 (M) Surveys of Watertight Cable Transits *(2021)* (a) Watertight cable transits are to be installed and maintained in accordance with the manufacturer's requirements and in accordance with the requirements of the relevant Type Approval certification. (b) The owner is to maintain the Register to record any disruption (repair, modification or opening out and closing) to a cable transit or to record the installation of a new cable transit. (c) Cable transits have been installed, and where disrupted have been reinstated, in accordance with the manufacturer's requirements and in accordance with the requirements of Type Approval. (d) Where specified, appropriate specialized tools have been used. (e) The Register is to be reviewed to confirm it is being maintained and as far as practicable the transits are to be examined to confirm their satisfactory condition. (f) Where there are records entered since the last annual survey of any disruption to the cable transits or installation of new cable transits, the satisfactory condition of those transits is to be confirmed by review of records and, if deemed necessary, by examination. The results are to be recorded in the Register against the specific cable transit.	A global unified standard is required to improve the installation & maintenance of Pressure-Rated MCT/Transit systems. To properly maintain Ship structures and promote vessel safety during water ingress, a better method is necessary to document & manage installation, maintenance & repair of MCT/Transit systems. - reflected 1.2 of IACS UR Z28 - reflected 2.2.1 of IACS UR Z28 - reflected 3.1 of IACS UR Z28 - reflected 4.2.1 of IACS UR Z28 - reflected 4.2.2 of IACS UR Z28

Present	Amendment	Note
303. Special survey **1. ~ 3. 〈omitted〉** **4. Special Survey No. 1** (1) Hull, structure and equipments (A) All units The following parts are to be examined: (a) ~ (o) 〈omitted〉 〈newly added〉	**303. Special survey** **1. ~ 3. 〈same as the current Guidances〉** **4. Special Survey No. 1** (1) Hull, structure and equipments (A) All units The following parts are to be examined: (a) ~ (o) 〈same as the current Guidances〉 (p) Surveys of Watertight Cable Transits *(2021)* (i) The requirements for Special Survey may be undertaken by the attending Surveyor or by a firm approved as a service supplier according to the Guidance for Approval of Service Suppliers. (ii) All transits are to be examined to confirm their satisfactory condition and the Register is to be reviewed to confirm it is being maintained. The Special Survey is to be recorded in the Register, in which a single record entry will be sufficient to record the survey of all transits. (iii) From review of the Register, where there are records entered since the last special survey of any disruption to the cable transits or installation of new cable transits (except which are reviewed and examined at previous annual surveys), the satisfactory condition of those transits is to be confirmed by the attending Surveyor by review of records and examination of the transits; the results are to be recorded in the Register against each of those cable transits. (iv) In case the cable transits have been examined by an approved service supplier, the attending surveyor is to review the Register in order to ascertain that it has been properly maintained by the owner and correctly endorsed by the service supplier.	- reflected 4.1.1 of IACS UR Z28 - reflected 4.1.2 of IACS UR Z28 - reflected 4.1.3 of IACS UR Z28 - reflected 4.1.4 of IACS UR Z28

GUIDANCE RELATING TO THE RULES FOR THE CLASSIFICATION OF STEEL SHIPS

(Rules for the Classification of Mobile Offshore Drilling Units)

2021. 1.

Hull Rule Development Team

- Main Amendments -

(1) Enter into force on 1 July 2022 (the contract date for ship construction)

◉ To reflect Request for Establishment/Revision of Classification Technical Rules

Present	Amendment	reason
Chapter 1 ~ Chapter 2 <Omitted> **Chapter 3 Construction, Strength and Materials** **Section 1 ~ Section 9 <Omitted>** **Section 10 Materials** 1001. ~ 1004. <Omitted> 1005. Application of steels 1. Application of rolled steels for surface type units is to be accordance with the requirements in **Pt 3, Ch 1, Sec 4** of Rules for the Classification of Steel Ships. 2. Application of rolled steels for self-elevating units and column-stabilized units is to be in accordance with **Table 3.5** to **3.7** to depending on the categories of structural members, thickness and design service temperature. **Section 11 ~ Section 19 <Omitted>** **Chapter 4 ~ Chapter 12 <Omitted>**	**Chapter 1 ~ Chapter 2 <Same as the present rules>** **Chapter 3 Construction, Strength and Materials** **Section 1 ~ Section 9 <Same as the present rules>** **Section 10 Materials** 1001. ~ 1004. <Same as the present rules> 1005. Application of steels 1. Application of rolled steels for surface type units is to be accordance with the requirements in **Pt 3, Ch 1, Sec 4** of Rules for the Classification of Steel Ships. 2. Application of rolled steels for self-elevating units and column-stabilized units is to be in accordance with **Table 3.5** to **3.7** to depending on the categories of structural members, thickness and design service temperature. **Section 11 ~ Section 19 <Same as the present rules>** **Chapter 4 ~ Chapter 12 <Same as the present rules>**	Reflection of Request for Revision of Classification Technical Rules

<Present>

Table 3.5 Application of Steels for Primary Structure Members

Thickness t(mm) / Service temperature T(℃)	t≤12.5	12.5<t≤19	19<t≤25	25<t≤35	35<t≤50
0 ≤T	A, AH 32, AH 36	A, AH 32, AH 36	B, AH 32, AH 36	B, AH 32, AH 36	D, DH 32, DH 36
-10 ≤ T <0	A, AH 32, AH 36	B, AH 32, AH 36	D, DH 32, DH 36	D, DH 32, DH 36	E, DH 32, DH 36
-20 ≤T <-10	B, DH 32, DH 36	D, DH 32, DH 36	E, DH 32, DH 36	E, DH 32, DH 36	E, EH 32, EH 36
-30 ≤T <-20	D, DH 32, DH36	E, DH 32, DH 36	E, EH 32, EH 36	E, EH 32, EH 36	E, EH 32, EH 36
-40 ≤T <-30	E, EH 32, EH 36	E, EH 32, EH 36	E, EH 32, EH 36	E, EH 32, EH 36	*
-50 ≤T <-40	E, EH 32, EH 36	E, EH 32, EH 36	*	*	*
*At the discretion of the Society.					

Table 3.6 Application of Steels for Secondary Structure Members

Thickness t(mm) / Service temperature T(℃)	t≤12.5	12.5<t≤19	19<t≤25	25<t≤35	35<t≤50
0 ≤T	A, AH 32, AH 36	A, AH 32, AH 36	A, AH 32, AH 36	A, AH 32, AH 36	B, AH 32, AH 36
-10 ≤ T <0	A, AH 32, AH 36	A, AH 32, AH 36	B, AH 32, AH 36	B, AH 32, AH 36	D, DH 32, DH 36
-20 ≤T <-10	B, AH 32, AH 36	B, AH 32, AH 36	D, DH 32, DH 36	D, DH 32, DH 36	E, DH 32, DH 36
-30 ≤T <-20	D, DH 32, DH 36	D, DH 32, DH 36	E, DH 32, DH 36	E, DH 32, DH 36	E, EH 32, EH 36
-40 ≤T <-30	E, DH 32, DH 36	E, EH 32, EH 36	E, EH 32, EH 36	E, EH 32, EH 36	E, EH 32, EH 36
-50 ≤T <-40	E, EH 32, EH 36	E, EH 32, EH 36	E, EH 32, EH 36	*	*
*At the discretion of the Society.					

Table 3.7 Application of Steels for Special Portion of Structure Members

Thickness t(mm) / Service temperature T(°C)	t≤12.5	12.5<t≤19	19<t≤25	25<t≤35	35<t≤50
0 ≤T	B, AH 32, AH 36	D, DH 32, DH 36	D, DH 32, DH 36	E, DH 32, EH 36	E, DH 32, EH 36
−10 ≤ T <0	D, DH 32, DH 36	E, DH 32, DH 36	E, DH 32, DH 36	E, EH 32, EH 36	E, EH 32, EH 36
−20 ≤T <−10	E, DH 32, DH 36	E, EH 32, EH 36	E, EH 32, EH 36	E, EH 32, EH 36	E, EH 32, EH 36
−30 ≤T <−20	E, EH 32, EH 36	E, EH 32, EH 36	E, EH 32, EH 36	*	*
−40 ≤T <−30	E, EH 32, EH 36	*	*	*	*
−50 ≤T <−40	*	*	*	*	*
*At the discretion of the Society.					

<Amendment>

Table 3.5 Application of Steels by Thickness according to Design Temperature for Primary Structure Members

Steel Grade	Minimum Design Temperature					
	0°C	-10°C	-20°C	-30°C	-40°C	-50°C
A	20	10	*	*	*	*
B	25	20	10	*	*	*
D	45	40	30	20	10	*
E	50	50	50	40	30	20
AH32, AH36, AH40	25	20	10	*	*	*
DH32, DH36, DH40	45	40	30	20	10	*
EH32, EH36, EH40	50	50	50	40	30	20
FH32, FH36, FH40	50	50	50	50	50	40
AH43, AH47, AH51, AH56, AH63, AH70	20	*	*	*	*	*
DH43, DH47, DH51, DH56, DH63, DH70	45	35	25	15	*	*
EH43, EH47, EH51, EH56, EH63, EH70	50	50	45	35	25	15
FH43, FH47, FH51, FH56, FH63, FH70	50	50	50	50	45	35

Table 3.6 Application of Steels by Thickness according to Design Temperature for Secondary Structure Members

Steel Grade	Minimum Design Temperature					
	0°C	-10°C	-20°C	-30°C	-40°C	-50°C
A	30	20	10	*	*	*
B	40	30	20	10	*	*
D	50	50	45	35	25	15
E	50	50	50	50	45	35
AH32, AH36, AH40	40	30	20	10	*	*
DH32, DH36, DH40	50	50	45	35	25	15
EH32, EH36, EH40	50	50	50	50	45	35
FH32, FH36, FH40	50	50	50	50	50	50
AH43, AH47, AH51, AH56, AH63, AH70	40	25	10	*	*	*
DH43, DH47, DH51, DH56, DH63, DH70	50	45	35	25	15	*
EH43, EH47, EH51, EH56, EH63, EH70	50	50	50	45	35	25
FH43, FH47, FH51, FH56, FH63, FH70	50	50	50	50	50	45

Table 3.7 Application of Steels by Thickness according to Design Temperature for Special Portion of Structure Members

Steel Grade	Minimum Design Temperature					
	0°C	-10°C	-20°C	-30°C	-40°C	-50°C
A	*	*	*	*	*	*
B	15	*	*	*	*	*
D	30	20	10	*	*	*
E	50	45	35	25	15	*
AH32, AH36, AH40	15	*	*	*	*	*
DH32, DH36, DH40	30	20	10	*	*	*
EH32, EH36, EH40	50	45	35	25	15	*
FH32, FH36, FH40	50	50	50	50	40	30
AH43, AH47, AH51, AH56, AH63, AH70	*	*	*	*	*	*
DH43, DH47, DH51, DH56, DH63, DH70	25	15	*	*	*	*
EH43, EH47, EH51, EH56, EH63, EH70	50	40	30	20	10	*
FH43, FH47, FH51, FH56, FH63, FH70	50	50	50	40	30	20

Rules for the Classification of Mobile Offshore Drilling Units

(Development Review : Final)

- Chapter 7 Machinery and Electrical Installations in Hazardous Areas

2022. 2.

Machinery Rule Development Team

Effective Date : 1 July 2022

(The contract date for ship construction)

Present	Amendment	Remark
Section 1 General	**Section 1 General**	
101. 〈same as the present Rules〉	**101. 〈same as the present Rules〉**	
102. Definition of hazardous area	**102. Definition of hazardous area**	
1. 〈same as the present Rules〉	**1.** 〈same as the present Rules〉	
2. Hazardous areas are divided into zones as follows; Zone 0 : an area in which an explosive gas-air mixture is continuously present or present for long periods. Zone 1 : an area in which an explosive gas-air mixture is likely to occur in normal operating conditions. Zone 2 : an area in which an explosive gas-air mixture is not likely to occur, and if it occurs, it will only exist for a short time.	**2.** Hazardous areas are divided into zones as follows; Zone 0 : an area in which ~~an explosive gas-air mixture is~~ ignitable concentrations of flammable gases or vapours are continuously present or present for long periods. *(2022)* Zone 1 : an area in which ~~an explosive gas-air mixture is~~ ignitable concentrations of flammable gases or vapours are likely to occur in normal operation ~~operating conditions~~. *(2022)* Zone 2 : an area in which ~~an explosive gas-air mixture is~~ ignitable concentrations of flammable gases or vapours are not likely to occur, ~~and~~ or in which such a mixture, if it does occur~~s~~, ~~it~~ will only exist for a short time. *(2022)*	(Amended) - In the reflection of UR D8(Rev.3), definitions of hazardous areas have been amended.
Section 2 Extent of Hazardous Area	**Section 2 Extent of Hazardous Area**	
201. 〈same as the present Rules〉	**201. 〈same as the present Rules〉**	

Present	Amendment	Remark
202. Hazardous areas Zone 0 Hazardous areas Zone 0 include ; (1) The internal spaces of closed tanks and pipes of the mud-circulating system between the well and the final degassing discharge. (2) The internal spaces of closed tanks and piping for containing oil that has a closed-cup flash-point below 60°C. (3) The internal spaces of closed tanks and pipes for oil and gas products including escape gas outlet pipes. (4) The spaces in which an oil-gas-air mixture is continuously present or present for long periods.	**202. Hazardous areas Zone 0** *(2022)* Hazardous areas Zone 0 include ; ~~(1)~~ The internal spaces of closed tanks and ~~pipes of the mud-circulating system between the well and the final degassing discharge.~~ piping for containing the following in which an oil/gas/air mixture is continuously present or present for long periods ; (A) active non-degassed drilling mud (B) oil that has a closed-cup flashpoint below 60°C (C) flammable gas and vapour (D) produced oil and gas ~~(2) The internal spaces of closed tanks and piping for containing oil that has a closed-cup flash-point below 60°C.~~ ~~(3) The internal spaces of closed tanks and pipes for oil and gas products including escape gas outlet pipes.~~ ~~(4) The spaces in which an oil-gas-air mixture is continuously present or present for long periods.~~	(Amended) - In the reflection of UR D8(Rev.3), definition of hazardous areas Zone 0 has been amended.
203. 〈same as the present Rules〉	**203. 〈same as the present Rules〉**	
204. Hazardous areas Zone 2 Hazardous areas Zone 2 include; (1) - (4) 〈same as the present Rules〉 (5) Outdoor locations below the drill floor and within a radius of 1.5m from the area specified in **203.** (6). (6) - (8) 〈same as the present Rules〉	**204. Hazardous areas Zone 2** Hazardous areas Zone 2 include; (1) - (4) 〈same as the present Rules〉 (5) Outdoor locations below the drill floor ~~and~~ within a radius of 1.5m from the area specified in **203.** (6). *(2022)* (6) - (8) 〈same as the present Rules〉	(Corrigendum)
205. Openings, access and ventilation conditions affecting the extent of hazardous zones **1. - 4. 〈same as the present Rules〉** **5.** Hold-back devices should not be used on self-closing gastight doors forming hazardous area boundaries.	**205. Openings, access and ventilation conditions affecting the extent of hazardous zones** **1. - 4. 〈same as the present Rules〉** **5.** Hold-back devices ~~should~~ are not to be used on self-closing gastight doors forming hazardous area boundaries. *(2022)*	(Corrigendum)