

GUIDE FOR BUILDING AND CLASSING

MOBILE OFFSHORE UNITS JULY 2008

NOTICE NO. 1 – May 2010

The following Changes become **EFFECTIVE AS OF 1 MAY 2010**.

(See <http://www.eagle.org> for the consolidated version of the Guide for Building and Classing Mobile Offshore Units 2008, with all Notices and Corrigenda incorporated.)

Notes - The date in the parentheses means the date that the Rule becomes effective for new construction based on the contract date for construction. (See 1-1-4/3.3 of the ABS Rules for Conditions of Classification – Offshore Units and Structures (Part I).)

FOREWORD

(Revise Foreword, as follows.)

Foreword (1 May 2010)

This Guide specifies the ABS requirements for building and classing Mobile Offshore Units of self-elevating or column-stabilized type, not fitted with drilling equipment, production facilities, hydrocarbon storage, or any other system onboard handling hydrocarbons. Examples of Mobile Offshore Units covered by this Guide are:

- Accommodation Units
- Crane Units
- Construction and Maintenance Units
- Drilling Tenders
- Pipe and Cable Laying Units
- Wind Turbine Installation, Maintenance and Repair Units

and similar units used by the offshore industry.

The requirements contained in this Guide are for design, construction, and survey after construction of the Mobile Offshore Unit (including hull structure, equipment and marine machinery) and are based on the *ABS Rules for Building and Classing Mobile Offshore Drilling Units (MODU Rules)*. Reference tables are provided to identify the requirements in the MODU Rules applicable to the Mobile Offshore Units.

CHAPTER 1 SCOPE AND CONDITIONS OF CLASSIFICATION

SECTION 2 CLASSIFICATION SYMBOLS AND NOTATIONS

1 Units Built Under Survey

(Add new Paragraph 1-2/1.5, as follows.)

1.5 Specific Unit Types (1 May 2010)

Notations for specific types of units are given in the relevant Sections of Chapter 7.

(Add new Section 7-6, as follows.)

CHAPTER 7 SPECIFIC UNIT TYPES

SECTION 6 WIND TURBINE INSTALLATION, MAINTENANCE, AND REPAIR UNITS (1 May 2010)

1 General

Wind Turbine Installation, Maintenance and Repair units, as defined in 7-6/3.1, built to the requirements of this Section and other relevant sections of this Guide may be assigned the notation of **Wind IMR** after the classification notations described in 1-2/1.

3 Definitions

For the purpose of these requirements, the terms have the following meaning unless stated otherwise.

3.1 Wind Turbine IMR Unit

Within the application of this Guide, a *Wind Turbine IMR Unit* is a mobile offshore unit primarily intended for the installation, maintenance, and repair of wind turbines, including pile driving, tower installation, and nacelle and blade installation.

3.3 Deck Cargo

Deck Cargo includes wind turbine nacelles, towers, blades, and any other items which are installed in association with a wind power generation structure. It also includes any temporary structures such as racks, stands, or cradles which are not permanently attached to the unit.

5 Certification of Cranes

Any crane permanently installed on board the Wind Turbine IMR unit and intended for operations other than supply of provisions and maintenance of the unit is to be certified by ABS in accordance with Chapter 2 of the *ABS Guide for Certification of Lifting Appliances* or API Specification 2C.

Mobile cranes not permanently attached to the unit structure, such as crawler cranes, are not required to be certified.

Lifting appliances of types not considered in the above referenced standards will be subject to special consideration.

7 Crane Pedestal and Supporting Structure

The crane pedestal, when not covered by the crane certification, is to be designed in accordance with the recognized standard to which the crane is certified. Details and calculations are to be submitted for review.

In addition, crane pedestals are to be designed to resist motion-induced loads in severe storm, normal operating and transit conditions using the allowable stresses defined in 3-2-1/3 of the *MODU Rules*, considering the operating limits of the crane.

Detail drawings of the foundation and supporting structure on which the crane and boom rest or other stowage arrangements are installed are to be submitted for review. The hull supporting structure is also to be designed to resist the design static and dynamic loading conditions of the crane, using the allowable stresses defined in 3-2-1/3 of the *MODU Rules*. The boom rest or other stowage arrangements and their foundation and supporting structure are to be designed for the out-of-service loads as defined in 2-2/5.1.2 of the *ABS Guide for Certification of Lifting Appliances* or the recognized standard to which the crane is certified.

9 Supporting Structure for Pile Driving Equipment

Detail drawings of the foundation and supporting structure on which the pile driving rig and supporting equipment are installed are to be submitted for review. The hull supporting structure is also to be designed to resist the design static and dynamic loading conditions of the pile driving equipment using the allowable stresses defined in 3-2-1/3 of the *MODU Rules*.

In addition, the foundation and supporting structure are to be designed to resist motion-induced loads in severe storm, normal operating and transit conditions using the allowable stresses defined in 3-2-1/3 of the *MODU Rules*.

11 Supporting Structure for Deck Cargo

Foundations and supporting structure in way of deck cargo and permanently attached cargo-carrying structures such as blade racks are to be designed to adequately resist the load effects of the cargo in severe storm, normal operating and transit conditions using the allowable stresses defined in 3-2-1/3 of the *MODU Rules*.

Consideration is also to be given to the Wind Turbine IMR unit in damaged conditions, where the structures above are to withstand the load effects of the cargo caused by the trim and heel of the unit in these damaged conditions, using the allowable stresses defined in 3-2-1/3 of the *MODU Rules* in association with a factor of safety of 1.0.

Tie-down or other securing arrangements are not included in the scope of the Wind Turbine IMR Classification.

13 Stability

In addition to complying with the requirements of Chapter 3, Section 3 of this Guide, the following requirements apply to Wind Turbine IMR units.

13.1 Overturning Moment

In calculating overturning moments for Wind Turbine IMR units, the effect of the operational loads acting simultaneously with the maximum design environmental force is to be determined. The full range of crane positions, elevations and weights is to be considered in order to investigate the most critical scenarios. The wind area of the deck cargo is to be considered in the calculation of the overturning moment.

When the Wind Turbine IMR unit is equipped to counter-ballast while lifting, the unit is to be able to withstand the sudden loss of the hook load in each condition of loading and operation. The free surface effects are to be considered for those tanks which are ballasted. Specific reference may be made to Appendix 7-A1, “Stability Criteria for Counter-Ballasted Crane Units”.

13.3 Deck Cargo

Loading conditions in the operations manual are to include the effect of the deck cargo for each operating condition, using the estimated weight and the height of the center of gravity of the cargo based on the most severe loading assumptions. The loading conditions are to cover the full range of operating configurations, from no deck cargo on board to the maximum design deck load.

If the unit is intended to carry deck cargoes that may accumulate water, such as open cargo bins or open pipes, a free surface correction is to be applied to afloat conditions.

15 Surveys

For survey requirements, refer to applicable sections of Chapter 6 of this Guide.

In addition, surveys of cranes after construction are to be carried out in accordance with Chapter 2, Section 7 of the *ABS Guide for Certification of Lifting Appliances*.

(Renumber existing Section 7-6 as Section 7-7.)