Manage risk of damage to grating systems (walkways and deck areas) on offshore installations during rig moves

Health and Safety Executive - Safety alert

Department Name:
Energy Division

Bulletin No:
ED09-2023

Issue Date:
09/23

Target Audience:
Dutyholders (including Operators and owners of offshore installations) undertaking rig moves on the UKCS

Issue

Grating-systems (used on walkways and deck areas) on offshore installations can be damaged or dislodged during rig moving operations. People may be harmed if walkways and emergency access and egress routes are damaged during rig moves. The risk of damage to these systems may increase during adverse weather or sea state.

Outline of problem

HSE is aware of incidents of damaged and dislodged gratings that have presented risks of harm to personnel on offshore installations operating on and outside of the United Kingdom Continental Shelf (UKCS).

The grating-systems can be damaged by adverse weather conditions such as wave impact. Damage can occur when moving rigs including towing, moving semi-submersibles, jacking, or manoeuvring jack-up rigs. The condition of grating systems may also deteriorate over time.

Action required

Dutyholders (including Operators and owners of offshore installations) should carry out a risk assessment of the types of grating system used on their installation, and the potential for it to be dislodged or damaged during rig moving operations, by adverse weather and sea state.

Once you identify any hazards, you should eliminate or control the risks, so far as is reasonably practicable.

Assess risks for all modes of operation

Operational hazards and risk profiles are likely to change when an installation enters a different mode of operation. Duty holders should assess risks regarding any grating systems to ensure their reliability and safe use during those differing operational activities. For example, in rig moving mode it is not uncommon for deck areas and walkways to be closer to the water surface. A change in weather or sea state may require the temporary (or permanent) closure or restriction of access to specified areas, doorways and/or walkways, and the consideration of revised muster points and escape routes.

Design, installation and maintenance

Consider the suitability and design of your grating systems to determine areas where the installation may be more susceptible to damage during different modes of operation (such as jacking and/or wet tow activities).

Ensure all grating systems are subject to regular inspection and maintenance to check that they are installed correctly and as per any manufacturers guidance and remain in effective working order.

Employees or contractors that design, install, inspect and/or repair grating systems should be sufficiently competent to undertake their role.

Operational policies and procedures

Operational policies and procedures, such as your adverse weather policy, should consider what actions may be necessary if weather conditions or sea state change and impact on the safe undertaking on any activity.

Your operational policies and procedures should adequately consider the risks associated with rig moves as well as risks during jacked up or moored operations. And if necessary, work activities during moving operations

should be temporarily or permanently modified and/or restricted to ensure the safety of personnel.

You should consider if a system for accounting for the whereabouts of all persons working outside of the accommodation areas would provide further control measures to rig moving activities.

It is not uncommon for individual workers to work extended hours during rig move operations and to have more than one operational role for different phases of operation. You must adequately assess the increased risk of fatigue and control it. Ensure that there is either sufficient rest and/or adequate cover for safety critical roles and responsibilities.

Emergency response arrangements

In the event of a missing person or person overboard, those involved in rig move operations must ensure that effective emergency response arrangements are in place. This should include, but not necessarily be limited to, how an installation will respond and what actions must be taken to report missing person(s) or person(s) overboard.

When undertaking a rig move risk assessment your Emergency Response Plan (ERP) should adequately consider (but not necessarily be limited to):

- the possibility of a person falling overboard when in transit
- the suitability of rescue and recovery equipment, and crew competence in using that equipment
- the ability of installation personnel to launch a rescue boat and recover a person(s) in a timely fashion - it may be more appropriate to assign responsibility for rescue and recovery to others (such as one of the towing vessels if it is equipped for such operations)
- training and testing of ERPs is in place to assure effective communications with the Coastguard during the different phases of response (commonly referred to as the Uncertainty Phase, Alert Phase and Distress Phase)
- your ERPs are aligned with accepted industry standards, such as the International Aeronautical Maritime Search and Rescue (IAMSAR) manual
- suitable communications systems are available and tested so that they can be relied upon in a dynamic marine environment, and what actions to take if a system is impaired or unavailable.

Guidance

- A guide to the Offshore Installations and Pipeline Works (Management and Administration) Regulations 1995 (Second edition)[9]
- HSE safety alert Unsafe use of floor grating systems in oil and gas, and wind generation[10], March 2023.
- HSE safety alert Warning to offshore industry on possible failure of fire resistant composite deck gratings[11], October 2012
- International Maritime Organization (IMO) the International Aeronautical Maritime Search and Rescue (IAMSAR) manual[12]

Relevant legal documents

- Health and Safety at Work etc Act 1974[13]
- Provision and Use of Work Equipment Regulations 1998[14]
- The Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations 1995[15]

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10. Unsafe use of floor grating systems in oil and gas, and wind generation
    https://www.hse.gov.uk/safetybulletins/floor-grating-systems.htm
11. Warning to offshore industry on possible failure of fire resistant composite deck gratings
    https://www.hse.gov.uk/safetybulletins/deck-gratings.htm
12. the International Aeronautical Maritime Search and Rescue (IAMSAR) manual
    https://www.imo.org/en/OurWork/Safety/Pages/IAMSARManual.aspx
13. Health and Safety at Work etc Act 1974
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14. Provision and Use of Work Equipment Regulations 1998
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15. The Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations 1995
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