

Safety Flash

UK HSE: Risk of collision with offshore installations from attendant vessels

Safety Flash Published on 16 April 2025 Generated on 27 May 2025 IMCA SF 07/25

The UK Health and Safety Executive (HSE) has published Safety Notice ED01-2025 relating to the risk of collision with offshore installations. HSE has identified a rise in the number of incidents of attendant ships colliding with offshore oil and gas and renewable energy structures. Failure of navigational watch processes and systems, is resulting in collisions or risk of collisions.

Incident 1: Loss of situational awareness

A platform supply vessel (PSV) was requested to enter the 500m zone of a fixed installation. The Chief Officer and a watchkeeping officer were on the bridge. Preentry checklists were completed, and the Chief Officer began manoeuvring the vessel towards the 500m zone. The Chief Officer allowed the speed of the vessel to increase above the normal rate and the watchkeeping officer was engaged in other tasks. The Chief Officer made attempts to control the movement of the vessel, during which time it struck the leg of the installation.

Incident 2: Failure to keep a proper lookout

A multi-role emergency response and rescue vessel (ERRV) was standing-by outside the 500m zone of a jack-up drilling installation. The Master had just handed over to the Officer of the Watch (OOW). It was dark, the weather was good, and there was a lookout on the bridge. The OOW became engaged in non-navigational tasks, including writing minutes to a recent meeting and testing the bridge radios. The lookout asked the OOW if he could use the bridge computer and was given permission to do so. Neither the OOW nor the lookout noticed that a change in environmental conditions meant the vessel was now drifting towards the jack-up. A PSV was alongside the jack-up and raised concern that the ERRV had entered the 500m zone and was on a collision course with the installation. The jack-up control room attempted to call the ERRV and instructed them to leave the zone. The ERRV collided with one of the legs of the jack-up.

Incident 3: Distracted by administrative tasks

A PSV was standing by a jack-up drilling installation. It was daytime, the weather was good and there was a single OOW on the bridge. The vessel was configured in 'green dynamic positioning' (DP) meaning the DP system was controlling surge but not sway. The OOW began some administrative tasks on the bridge computer but kept an eye on the installation through the bridge front window, knowing that if he kept the installation ahead of the vessel, the 'green DP' configuration meant he

would not drift towards it. The view from the OOW's position at the bridge computer out the side window was blocked by the bridge toilet and ships funnel. The OOW was therefore unaware that the vessel was drifting sideways towards a neighbouring fixed installation. The PSV drifted inside the 500m safety zone and collided with the leg of the installation.

Incident 4: Failure to assess environmental conditions

A PSV was engaged in cargo operations alongside a mobile drilling installation. It was dark, weather conditions were marginal, and the vessel was in a drift-on position with the bow into the wind. The Master was in control of the DP system and a watchkeeping officer was supporting him on the bridge. The crane operator on the installation asked if the vessel could change heading to enable access to cargo outside the reach of the crane. The Master pulled away from the installation a short distance and changed the vessel heading. This action resulted in the DP system being unable to maintain position and the vessel drifted towards and collided with the drilling installation.

Incident 5: Lack of communication between bridge team

A windfarm service operation vessel (SOV) was transiting through the windfarm. It was daylight, weather was good, the vessel was in DP mode and there was an OOW and Dynamic Positioning Officer (DPO) on the bridge. The DPO had control of the vessel and was changing heading to pass a wind turbine. The OOW was engaged in a non-navigational task. The change of heading resulted in the vessel being on a collision course with a wind turbine. The Master, who had gone to the bridge for another purpose, noticed the developing situation and took control of the vessel, but was unable to prevent collision with the wind turbine.

Recommendations (HSE)

Duty holders and vessel operators should have in place processes and systems, as part of a wider safe system of work, to ensure that, during connected activities, vessels are operated in a way that ensures, so far as is reasonably practicable, the safety of people on nearby installations.

Actions (HSE)

Vessel operators and duty holders responsible for marine activities connected with offshore oil and gas installations and windfarms should review operating procedures and take actions relevant to your operation.

- • Provide clear watchkeeping instructions
 - International Maritime Organisation (IMO) standards for keeping a navigational watch require a proper lookout to be maintained at all times;

- The lookout must be able to give full attention to the keeping of a proper lookout and no other duties should be undertaken or assigned which could interfere with that task. This applies at all times the vessel is engaged in a connected activity, which includes when the vessel is outside the 500m metre zone on standby for the next operation, and standing by or transiting through a windfarm. Watchkeeping arrangements during these times should be reviewed against IMO standards and the International Regulations for Preventing Collisions at Sea to ensure all the recommended principles when keeping a navigational watch are applied;
- Ensure that procedures and instructions regarding watchkeeping when engaged in a connected activity are clear and unambiguous, and include those periods when the vessel is on standby or transiting through a windfarm.
- Review bridge resource management
- Vessel operators should review bridge resource management (BRM) processes;
- Check the effectiveness of bridge teamwork and communication arrangements (including how the culture of challenging actions and omissions by any member of the bridge team is promoted);
- Review the design, arrangement and use of bridge equipment (including electronic aids, automated functions and dynamic positioning (DP) systems), and the effectiveness of BRM training. (BRM training is a behavioural tool which assists with the development of teamwork, and as such adds to existing competency assurance programs that aim to establish and maintain individual competency.)
- · Review the use of bridge alarms
- All cargo ships of 150GT or more are required have a Bridge Navigational Watch Alarm System (BNWAS) to monitor bridge activity and automatically alert the master if for any reason the OOW becomes incapacitated. IMO have set performance standards for BNWAS, which include an automatic function, where the BNWAS will only be operational when a ships heading or track control is activated and inhibited at other times. However Safety of Life at Sea (SOLAS) Convention, Chapter V, Regulation 19 requires BNWAS to be ON and operating whenever a vessel is underway at sea.
- Duty holders and vessel operators should review instructions regarding the use of BNWAS to ensure the system is always operational whenever the vessel is engaged in a connected activity or standing by an installation.
- BNWAS alarms can be set to between 3 and 12 minute intervals.
 Operators and duty holders should consider the proximity of attendant vessels to installations and other structures and select the most appropriate interval between alarms, taking into account the distance a vessel may drift in the intervening period.
- Consider implementing new and emergent technologies, such as proximity warnings which are audible to persons on the bridge when the vessel approaches an installation or structure. These systems are already installed on vessels in some windfarms.

- · Monitor attendant vessels
- Duty holders should check the arrangements for monitoring the movements of attendant vessels. Check that these arrangements would detect an attendant vessel making an unplanned approach to the installation.
- Consider using an ERRV to monitor attendant vessels as well as errant or passing vessels, or automated systems such as AlS tracking, guard zones and automated alerts, or a combination of both.
- If a ERRV is used to monitor attendant vessels, this duty should be understood by the master and officers on the ERRV, and sufficient resources provided to enable them to undertake that duty. Any equipment provided in addition to the ship's equipment should be adequate for the task and visible from the watchkeeper's position.
- If using automated tracking and alerting systems, duty holders should test the effectiveness of the system at appropriate intervals and with a sufficient degree of robustness to demonstrate the system will provide the necessary alerts at an appropriate range and Closest Point of Approach (CPA).
- Position vessels on prolonged periods of standby, such as when waiting on weather, at a distance from the installation so that any unplanned movement towards the it is clearly discernible to observers, and gives sufficient time to alert the attendant vessel to take remedial action.
- · Consider sailing audits for marine assurance
- In all of the cases described in this safety notice, the duty holders chartering the vessels had in place a marine assurance process to verify the operational capability of the vessel and competence of the crew. The incidents highlight that a shore-based assurance process, where the vessel is visited while in port, may not be adequate to identify watchkeeping and bridge resource management bad practice. These may only become apparent when the vessel is operating. Duty holders should therefore consider the benefits of sailing audits where a suitable qualified and experienced assessor can identify bad practice and where necessary coach good practice.

Members are reminded of the Health and Safety at Work etc Act 1974 (Application outside Great Britain) Order 2013 (AOGBO) which applies sections 1 to 59 and 80 to 82 of the Health and Safety at Work (etc) Act 1974 (HSWA) beyond the mainland of Great Britain to specified offshore areas and work activities, including activities in connection with an offshore installations, whether carried out from the installation itself, or in or from a vessel, other than a vessel being used as a standby vessel.

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