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MARINE OPERATIONS 500M SAFETY ZONE

**Pre-Entry > Set up >
Working > Exit**

1 Approach passage & pre-entry

- Vessel passage plans must not have installations as waypoints. Final waypoint must be offset from the installation
- Establish contact and ensure that radio-working channels are understood
- Pre-entry checks to be carried out in a drift off situation testing interaction / communications with installation. Determine who (on the installation) is responsible for maintaining contact with the vessel
- Should control of the vessel be transferred to another station (e.g. fwd to aft) or a different operating mode is selected (e.g. manual to full DP) then it should be ensured that all manoeuvring arrangements are responding as anticipated before undertaking any close proximity operations
- Discuss the planned approach and proposed work
- Any installation delays expected? Bulk transfer permits? Weather side working risk assessment? Installation staff availability? Notify vessel if any overboard discharges from the installation could affect operations
- DP reference system targets in correct position and ready (reflectors clean etc)
- Identify and set trigger and hold points which determine operation start/stop/hold or prompt a risk assessment or risk assessment review
- Vessel to confirm to installation once ready to enter safety zone

Only once the installation is fully satisfied that the vessel has undertaken the necessary pre-entry checks and that the work plan minimises the length of time the vessel will be required to be in close proximity to the installation should permission to enter the safety zone and proceed to the set-up location be given.

If it has been identified that working in a drift on condition will be required then, **before** permission to enter the 500m safety zone is given, a risk assessment must be undertaken by both the vessel and the installation, mitigations put in place as required and agreement between the OIM and Vessel Master made before allowing operations to be undertaken.

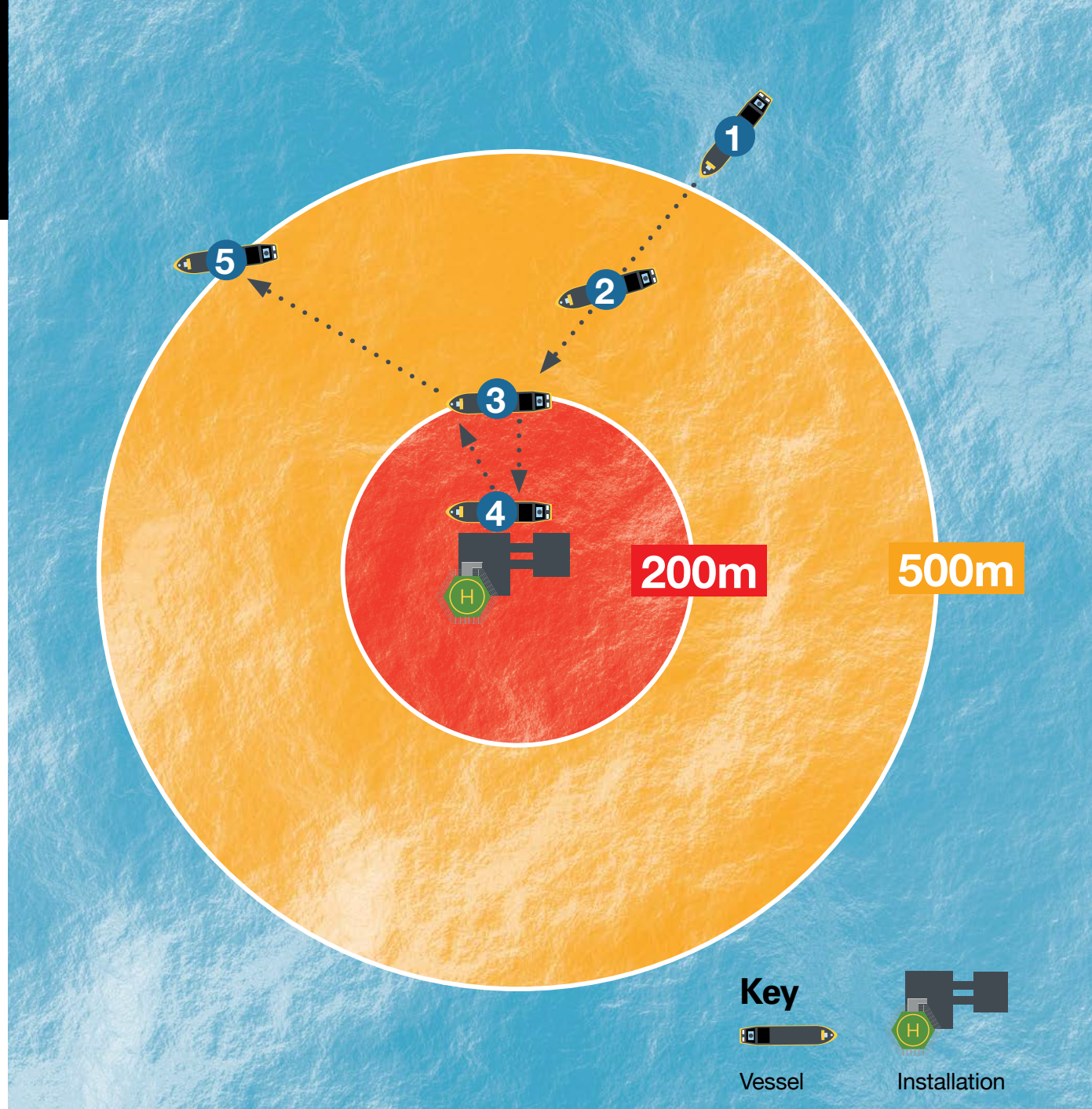
2 Approach (500m - 200m approx.)

Approach and work alongside installation to be made in the same mode as tested during pre-entry process. Should 'mode of operation' or control station be changed then the full range of system checks should be undertaken again to ensure that systems are operating correctly.

A correct approach should have the vessel coming alongside obliquely. The vessel should not approach head on.

- Speed to be 3 knots or less, depending on the vessel type and weather conditions
- Escape routes identified

**The faster the vessel comes in
the harder it could hit the installation!**



3 Position set-up

This is the process whereby vessel personnel determine how adequately the vessel is managing to hold position before starting the final approach. This should be done far enough away so that, if something goes wrong, the vessel crew have enough time to take corrective action.

It can take some time to acquire a stable position and allow a DP model to build up (up to 30mins)

Position set-up to take place well away from the installation (position such that installation collision avoided if equipment failure occurs during set up checks)

- 1½ x vessel length for drift-off operations
- 2½ x vessel length for drift-on operations

During this time the vessel personnel are to satisfy themselves that:

- DP references and sensors are stable
- Vessel motion is within operational limits
- Vessel machinery operation within limits i.e. power utilisation not greater than 45%

4 Final approach (200m approx. - working position) & alongside working

Once satisfactory set-up checks are complete and permission has been given by the installation to move to the working location, the vessel should be manoeuvred towards the installation in incremental steps (circa 10m) at a time using progressively smaller steps.

If the operation is going to involve working in a 'drift-on' condition, then a joint (installation and vessel) risk assessment must be undertaken.

- Speed ≈ 0.5kts (0.3m/s)
- Minimum separation distances to be maintained

5 Exiting safety zone

Once operations are complete and the vessel is ready to depart the safety zone the following should occur:

- Confirm manifests / DG notes all on-board
- Hose(s) disconnected and clear
- Deck secure (sea fastened) for transit
- Vessel secure
- Move to set-up position
- Depart safety zone in a controlled manner following recommended speeds as per entry process
- Transfer controls once outside safety zone
- Once outside safety zone vessel to obtain instructions (client control etc.)
- Provide ETAs for next location