

Safety Alert: Mooring hook pre-release

What happened?

During deployment of the sediment trap segment of a deep sea mooring from the Marine National Facility research vessel *Southern Surveyor*, a technician holding a release hook trigger-line suffered a head injury after the hook unexpectedly released and swung free. Fortunately the technician's safety helmet and safety glasses absorbed much of the impact. Treatment was provided onboard and the person has since recovered.

What was the risk?

Although serious, the incident had the potential to result in more extensive injury.

Why did it happen?

Before the vessel's A-frame could be fully deployed over the stern, the release hook swung free due to unexpected movement of the sediment trap in

the prevailing sea conditions. It later emerged a similar incident had occurred the same day with no resulting injury.

What changes were required?

Following an independent investigation, a focus group was established to research and redraft the existing moorings deployment procedure. The revised procedure was further reviewed by the onboard marine crew before being incorporated into the vessel's safety system. Key investigation recommendations addressed through this process include:

- ◆ on-deck personnel minimised to only those essential to the procedure and all deck operations take place under authority of the Bosun
- ◆ roles and training requirements defined for all personnel on deck at each stage of the operation

- ◆ well in advance, conduct and document a "full dress rehearsal" of the operation under controlled conditions
- ◆ prior to commencing each operation, complete a comprehensive decision matrix and proceed only if safe for the maximum expected period of the operation
- ◆ prior to each operation, conduct and document a toolbox meeting which not only reviews risks to people and equipment but clearly outlines the stop-work triggers to be observed by all personnel
- ◆ immediately prior to each operation, conduct and document a meeting on deck to test understanding of the procedure, roles and stop work triggers
- ◆ establish a dedicated safety observer to overview operations and effective use of stop-work triggers and consider video recording all deck operations
- ◆ ensure all equipment is calibrated and checked before use, including quick-release hook trigger loads, and consider using full head protection helmets
- ◆ conduct and document a post-operation debrief and implement any agreed improvements
- ◆ ensure onshore medical advice is sought if reassurance is required for a medical condition.

More generally, the procedural process outlined above has been adopted as a standard approach to all future complex deck operations by the Marine National Facility.

For more information contact

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Moorings work at sea (typical).