

MSF: Water-based mud spill on deck

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The Marine Safety Forum (MSF) has published [Safety Alert 20-05](#) relating to a spill of water-based mud

What happened?

During routine mud transfer operations at an offshore installation the rig hose parted from the vessel's manifold resulting in a release of approximately 2,500 litres of mud to the deck.

The crew quickly stopped the transfer and proceeded to use standard SOPEP equipment on-board to contain the spill on deck and recovered the contaminated mud within an empty mud tank.

The spill was entirely contained with no loss to the environment.

What were the causes? / What went wrong?

The manifold is normally fitted with a hammer union connection. It was discovered after initial inspection of the vessel's manifold that the thread between the manifold and the hammer union was found to be corroded.

Further inspection of the manifold threads determined that the threads in place were incompatible. The original manifold threads on-board the vessel were non-compliant to the standard National Pipe Thread (NPT) connection and therefore did not correctly engage.

As a result, these threads did not provide an adequate seal which increased the opportunity for corrosion to occur. This led the connection, over a period of time to become weakened and resulted in the hose parting from the manifold.

What actions were taken?

- **Careful check to ensure different threads are correct and compatible with one another.**
- Regularly monitor and inspect the condition of the threads on manifolds by implementing into the vessels' planned maintenance system (PMS).
- Pre-use checks to be conducted as part of the wet bulk transfer checklist to incorporate visual inspections of the manifold connection threads.

Whilst in this incident there was no harm to persons or to the environment, the issue of proper management of threads, most particularly the ensuring of

IOGP Life Saving Rules:



Energy isolation

compatibility, is a topic that has been raised before. There have been a number of incidents some of which have had tragic consequences.

Members may wish to refer to:

- Sewage Spilled onto the Quayside
- Low pressure mud hose parted
- Bailout cylinder and pillar valve compatibility failure
- Failure of threads – Follow up to “Corrosion coupon plug ejected from pressurised pipeline”

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