

WHAT HAPPENED:

After unlatching the lower marine riser package from the BOP due to pending weather conditions, there was an uncontrolled release of the riser string resulting in the lower marine riser package landing on the seabed. The riser string remained in the vertical position connected to the rig via 5 droop hoses which subsequently failed allowing the riser to fall to the seabed away from infrastructure. The rig was skidded away from the well center in the safe handling area. There were no injuries to personnel or damage to subsea assets.

CONTRIBUTING FACTORS:

The slip dog load (SDL) ring is reliant on human verification of the locking pin position and the visual indication of being locked/unlocked was not sufficient. The SDL term is associated with a mechanism used in drilling riser systems, particularly in the telescopic joint assembly. The SDL ring is part of this system and helps to manage the loads during drilling operations.

The procedural standard failed to adequately define accountabilities, highlight critical steps, and incorporate verification of those steps.

LESSONS LEARNED:

- Paint hi-visibility indication markings on the tensioner ring body and cam ring that align when the tensioner locking dogs are fully locked / extended.
- Fabricate a “Go / No-Go” gauge (with working at height retention) for verifying that the tensioner locking dogs are fully extended.
- Review and revise critical procedures to address human performance elements and best practices.
- Collaborate with OEM on a secondary locking pin engineering improvement which will include the development of a visual indication panel for the fully latched extension of the locking dogs and the option of installing an additional locking pin.
- Undertake a fleetwide review of critical operations authorization.