

RIG FLOOR PLATE FALLS TO PRODUCTION DECK

Alert 6-19

WHAT HAPPENED:

The drill crew had completed cleaning the pollution pans and were in the process of installing the pollution pan covers (see Figure 1, Green Boxes) when a Floorhand stepped on a floor plate that was still in its original position (See Figure 1, Orange Box), causing it to tilt. The plate subsequently slid through a gap in the rotary housing and fell 72ft. onto the platform's weather deck, it then broke through the hatch cover grating, landing 18 ft. below on the mezzanine deck where four employees were working. The plate weighed 330lbs, with dimensions of 34in. (L) x 31in. (W) x 1 in. thick and had the potential to cause a fatality.

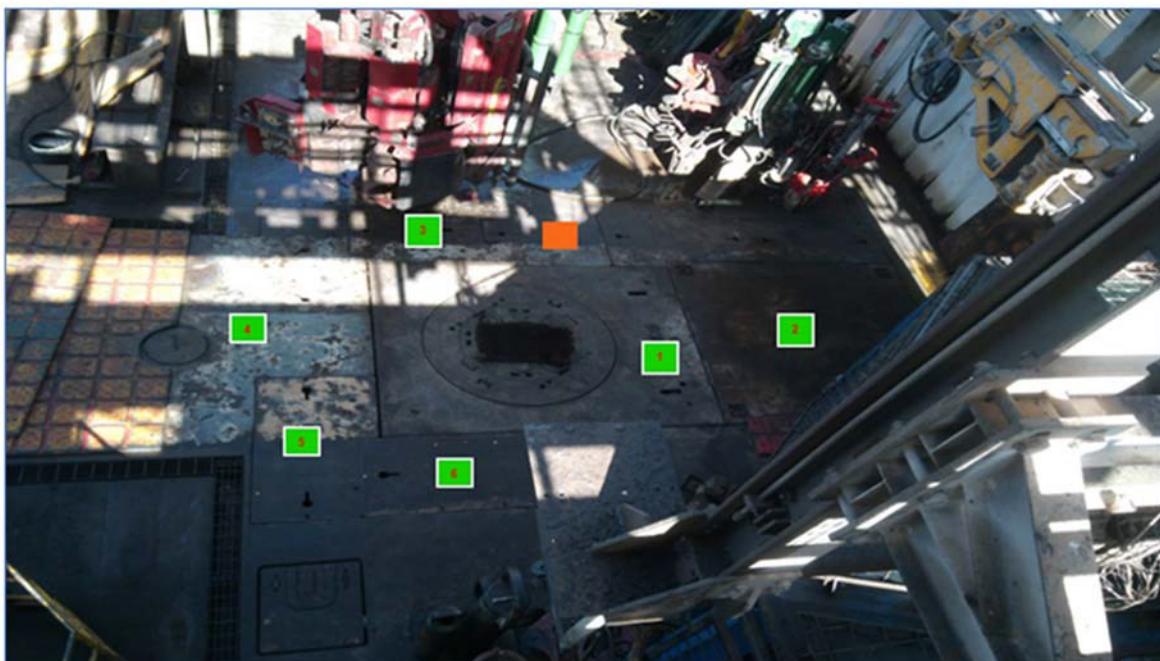


Figure 1 – View of the Drill Floor with the green boxes showing the plates that were removed and the orange box identifying the location of the plate that fell onto the platform.



Figure 2 – Original position of the plate



Figure 3 - Gap in rotary where plate fell through

CONTRIBUTING FACTORS:

- During construction of the rig, the plate that fell was not installed as per the construction drawing. It was designed to be a single piece but was found to have been cut from its parent plate and installed into its designated slot without being welded back together, resulting in the plate not being secured to the base.
- The procedure utilized for the rig floor cleaning activity did not provide detailed instructions for the safe execution of the task, including effective mitigation against dropped object risks.
- The rotary table housing sub-structure had an existing gap which allowed for the plate (or other potential dropped objects) to fall through. This was not identified by anyone since rig delivery.
- Design rating of the platform's top deck removable slot cover was not adequate to withstand an impact from a dropped object of this weight and height.

LESSONS LEARNED:

- Conduct a review of the rig company's construction acceptance process to help ensure construction is built per design and construction drawings.
- Review and update the procedure for cleaning of the pollution pans to ensure dropped objects are mitigated.
- Conduct a Hazard Hunt to inspect and determine any unsecured deck plates as well as any potential openings around the rotary housings and catch pans that would allow an object to fall through to the platform deck or other areas below the rig floor.
- Prior to a rig's arrival alongside any platform, a survey of the platform weather deck should be done jointly with customer to determine if additional protection is required to reduce the impact of potential dropped objects from the rig.
- Maintain a barricade under work being performed overhead.