

Fatal Alert

October 14, 2005

On the morning of October 14, 2005, a drilling crew Derrickman fell from the board in the derrick. Although his fall was arrested by his fall protection that he was wearing, his safety harness strangled him before he could be rescued.

The first task for the crew after shift change was to finish tripping out of the hole. At shift change the Driller overheard the Derrickman being relieved and the deceased discussing the rig not being level. They also discussed that the pipe was hard to handle on the boards because the rig was unlevel, causing the pipe to fall to the Derrickman's left. They also discussed difficulty in getting the elevators to latch and unlatch, also because the rig was not level. After their discussion, the deceased took the relieved Derrickman's safety harness and put it on. Interviews with the relieved Derrickman indicated that the deceased specifically requested that he give the deceased this specific safety harness, as "It was his favorite". The relieved Derrickman questioned the deceased's choice stating that he thought it was probably too large for him. The deceased then hooked up to the ladder-climbing device and climbed up to the boards. The Driller observed the deceased adjust his tail rope for the proper length and signal that he was ready. The crew finished tripping the pipe out of the hole, which consisted of 40 to 45 stands of pipe, taking about 2 hours. As everyone was busy, no one observed if the deceased had his safety harness adjusted or buckled properly. Interviews indicated that no one noticed if the deceased was attached to the Sala Block, which was his fall protection device. The first sign of trouble was when the deceased missed two stands of pipe back to back. The crew pulled the first missed stand back to him with the air tugger. He then missed the next stand. The Driller stated in his interview what he observed: " He started to latch it up, he missed. He tried to catch the pipe. It pulled him out, his belt opened up on the front, he grabbed the pipe and the pipe bounced and threw him off. The pipe pulled him out, bounces him off and he pendulumed back to the derrick". The deceased started yelling for "Help". The fall caused the deceased to almost become separated from the safety harness because the leg straps and the waist strap were not fastened. The crew was afraid that the deceased was going to fall out of the safety harness after the fall. During the rescue process, the deceased struggled to stay in the safety harness.

The rescue started. The winch line of the air tugger was used in an attempt to rescue the deceased. The Driller, told the deceased to wrap his legs around the air tugger line as the Motorman, ran it up past him. This attempt at rescue did not work and the line of the air tugger was pulled through the top sheave during the rescue attempt. The associated cable, chain, and chain end hook fell past the deceased (with force) on its way to the drilling floor.

The Driller directed the Floor Hand, to put his safety harness on and hook up to the Cat Line. The Floor Hand was then hoisted up on the Cat Line in an attempt to grab the deceased and lift him up. This attempt also failed, as the Floor Hand could not be lifted high enough to lift the deceased. Due to the angle of the Cat Line, he was being pulled

away from the deceased. The Driller then free climbed the derrick and tried to pull the deceased back up to the boards but could not. He called for help and the Motor Hand then climbed up to the boards. The two men were able to pull the deceased back on to the boards. The safety harness was removed (slipped over his head) after the Driller and the Motor Hand manually pulled the deceased back up and onto the boards with the tail rope. The Driller stated that he thought the deceased was attached with his tail rope to the D-ring and associated lanyard at the shoulder of the safety harness, instead of the D-ring at the safety harness waist belt, where it is designed to be hooked. If this was the case, the deceased had his tail rope connected where the Sala Block fall protection device was supposed to be attached. This could not be confirmed. The Driller stated that he thought the deceased fell about 15 feet before the tail rope stopped the fall. The Driller started CPR and continued CPR until the arrival of the ambulance. A member of the ambulance crew donned a safety harness, climbed to the boards, and assessed the deceased. He called for the crew to lower the deceased to the drilling floor with a stokes stretcher. The deceased was then moved to the ambulance for transport. The ambulance crew continued to perform advanced life saving procedures with no response.

Significant Factors:

- The deceased was not connected to a fall protection device.
- The deceased was not wearing the proper size safety harness for his body structure.
- The deceased did not properly tie off to the anchor point with his tail rope.
- The deceased was not wearing the safety harness properly.
- The deceased was not wearing a hardhat.
- Rig was not level.
- Lack of fall protection training.
- The crew was not trained to provide for an effective and timely emergency rescue in the event of a fall that resulted in a suspended employee.
- Supervision not enforcing established company safety rules.
- Lack of a company pre-employment and random drug-screening program.
- The deceased should have hooked his fall protection harness to an overhead retractable lanyard.
- Testimony from other crewmembers indicated that fall protection was not always used. This reflects a lack of fall protection training and enforcement.
- Lack of safety awareness and breakdown in safety on this rig.
- Driller on mishap rig indicated that he did not enforce the wearing of hardhats for Derrickmen working in the derrick.
- Deceased's Toxicology Report showed he was positive for cannabinoids and methyl alcohol at 0.008.

Recommendations

- When safety problems arise, such as high employee turnover and subsequent lack of training, safeguards need to be implemented to ensure safety is never compromised.

- Implement a training program to provide for an effective and timely emergency rescue in the event of a fall that results in a suspended employee.
- Develop a more in-depth and comprehensive written safety program and incorporate it into daily work practices and procedures.
- Establish policy that a detailed Job Safety Analysis (JSA) is done prior to starting any job and when the task or plans change.
- More training in the recognition and evaluation of potential hazards.
- Ensure that all personnel required to use fall protection equipment are properly trained.
- Provide a pre-work indoctrination to all personnel.
- Improve communications within the company to ensure safety issues are handled properly.
- Implement mandatory pre-employment drug screening.
- Implement aggressive random drug testing program.
- A Safety Manager should be hired that has only safety related responsibilities. Adequate resources should be made available to provide for timely rig inspections and training of employees, especially new hires.
- An aggressive policy of holding all supervisors directly responsible for safety needs to be established and strictly enforced.
- Discourage any activity that encourages production over safety.
- Brief all employees on the facts and circumstances of this accident.
- Top management needs to become more involved to ensure that safety is a top priority in the culture of the organization.
- Since it appears to be difficult for people on the rig floor to visually tell if the Derrickman is hooked up to the fall protection system (Sala Block), a policy could be put in place where the Sala line is extended to the bottom of the ladder at the rig floor. Prior to the Derrickman climbing the derrick, the Driller can inspect the Derrickman's harness and lanyard, ensure the Sala Line is attached to the harness properly, and remind the Derrickman of the importance of wearing fall protection properly. The policy could further state that the Sala Line would then stay attached to the Derrickman, only to be removed when the Derrickman returns to the Drilling floor.