

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

For Public Release

1. OCCURRED

DATE: 13-SEP-2019 TIME: 1530 HOURS

2. OPERATOR: Hess Corporation

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR:

REPRESENTATIVE:

TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER

3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR ON SITE AT TIME OF INCIDENT:

8. OPERATION:

4. LEASE: G22897

AREA: MC LATITUDE:

BLOCK: 724 LONGITUDE:

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO.
- OTHER **Construction**

5. PLATFORM: Gulfstar 1

RIG NAME:

6. ACTIVITY:

- EXPLORATION(POE)
- DEVELOPMENT/PRODUCTION (DOCD/POD)

9. CAUSE:

7. TYPE:

INJURIES:

HISTORIC INJURY

OPERATOR CONTRACTOR

REQUIRED EVACUATION 1

LTA (1-3 days)

LTA (>3 days)

RW/JT (1-3 days)

RW/JT (>3 days)

FATALITY

Other Injury

- EQUIPMENT FAILURE
- HUMAN ERROR
- EXTERNAL DAMAGE
- SLIP/TRIP/FALL
- WEATHER RELATED
- LEAK
- UPSET H2O TREATING
- OVERBOARD DRILLING FLUID
- OTHER **Management System; Workspace**

POLLUTION

FIRE

EXPLOSION

LWC HISTORIC BLOWOUT

UNDERGROUND

SURFACE

DEVERTER

SURFACE EQUIPMENT FAILURE OR PROCEDURES

10. WATER DEPTH: 4600 FT.

11. DISTANCE FROM SHORE: 53 MI.

12. WIND DIRECTION:
SPEED: M.P.H.

13. CURRENT DIRECTION:
SPEED: M.P.H.

14. SEA STATE: FT.

15. PICTURES TAKEN:

16. STATEMENT TAKEN:

COLLISION HISTORIC >\$25K <=\$25K

On 13 September 2019 at 1530 hours, an injury occurred while installing a flow assurance pump at the Hess Corporation, Mississippi Canyon 724-A (Gulfstar 1), OCS-G 22897 platform.

SEQUENCE OF EVENTS:

On 13 September 2019, the Injured Person (IP) was tasked to help the maintenance crew install the flow assurance oil pump located on Deck 7. The pump's piping segments were assembled to be lowered into a tank. A Maintenance Team Member (MTM) controlled an air-operated chain hoist to lower the assembled segments into the tank. On the first pipe segment, the IP was using a pry bar/alignment tool to align two holes in order to install a bolt and nut in a flange. The IP asked the MTM to lift the pipe to adjust the O-ring. As soon as the MTM lifted the piping, the alignment tool shifted, putting the IP's hand in a pinch point and causing a laceration to his hand.

The personnel present stopped the job and the IP reported the incident to the Operations Lead and Medic to seek medical treatment. The Medic cleaned the injury and applied tube gauze to stabilize the injury. The Medic consulted with an occupational doctor onshore who directed that the IP should be flown in for further evaluation. A Bristow helicopter was in the field at the time of the incident on the Motor Vessel Q4000. The Hess shore base contacted the helicopter to fly the IP in for further medical evaluation. The clinic took X-rays revealing a fracture of the distal left index finger. Clinic staff applied six sutures to the laceration. The IP returned to the facility and was released to full duty.

BSEE INVESTIGATION:

On 28 September 2019, one Bureau of Safety and Environmental Enforcement (BSEE) Accident Investigator performed an investigation. The BSEE Investigator interviewed personnel, took photographs, and collected documents. The Investigator conducted a hazard assessment inspection of the area and photographed the air-operated chain hoist. The air hoist is capable of handling up to 2 tons with a drive level rope connected to each side of the lever. The air hoist is operated by pulling one rope to raise the load and pulling the other rope to lower the load.

At the time of the incident, the air hoist was anchored 12 feet above the flow assurance oil tank with a nylon strap attached to the load. The work area was located in a cramped portion of the deck with three runs of piping of various sizes and several tubing runs. The MTM was responsible for raising and lowering the piping assembly utilizing a line connected directly to the air hoist while the IP aligned and installed the fasteners.

When the MTM lowered the piping assembly, the IP utilized an alignment tool to align the pipe and pump flanges together. While aligning the flanges, the O-ring between the flanges shifted and needed realignment. The IP directed the MTM to raise the piping in order to put the O-ring back into place. As the MTM raised the piping, it shifted, pinching the IP's hand between the piping and the alignment bar. The body position of the IP holding the alignment bar led to poor hand placement. However, the IP needed to hold the alignment bar in order to prevent the piping from damaging the pump. The air hoist has one speed to control the load's raising and lowering motion. Consequently, the speed of the air hoist caused the piping assembly to jerk upwards which led to the injury.

CONCLUSIONS:

Although the Job Safety Analysis (JSA) identified "pinch points" as a work hazard for the job, this specific pinch point hazard was not recognized. If the maintenance team had switched to a manual chain hoist, this would have allowed finer adjustments of equipment without quick movements possibly avoiding the injury.

18. LIST THE PROBABLE CAUSE(S) OF ACCIDENT:

• Work Environment- Congested hazardous workspace: The work area was located in a cramped portion of the deck with three runs of piping of various sizes and several tubing runs. This made it difficult for equipment assembly without the use of mechanical lifting devices.

19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:

• Management Systems - Inadequate hazard analysis: Although the Job Safety Analysis (JSA) identified "pinch points" as a work hazard for the job, this specific pinch point hazard was not recognized.

• Human error - Poor Hand Placement: The body position of the IP holding the alignment bar led to poor hand placement

• Equipment Failure - Inadequate Tools Used: The speed of the air hoist caused the piping assembly to jerk upwards which led to the injury. If the maintenance team had switched to a manual chain hoist, this would have allowed finer adjustments of equipment without quick movements possibly avoiding the injury.

20. LIST THE ADDITIONAL INFORMATION:

Hess provided the following corrective actions:

• Conduct & document Job Safety Analysis campaign with all personnel to include proper development, enhanced hazard recognition, and specific mitigations versus generalized/generic mitigations.

• Develop standard process for installation of vertical hull submersible pumps that directs the type of hoist and hand tools to use and how to secure O-Rings.

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

N/A

N/A

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

No recommendation.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

25. DATE OF ONSITE INVESTIGATION:

28-SEP-2019

28. ACCIDENT CLASSIFICATION:

29. ACCIDENT INVESTIGATION
PANEL FORMED: **NO**

26. INVESTIGATION TEAM MEMBERS:

Pierre Lanoix (AI Specialist) /

OCS REPORT:

27. OPERATOR REPORT ON FILE:

30. DISTRICT SUPERVISOR:

David Trocquet

APPROVED

DATE: **22-JAN-2020**