

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: 27-MAY-2019 TIME: 1430 HOURS

2. OPERATOR: Cox Operating, L.L.C.

REPRESENTATIVE:
TELEPHONE:

CONTRACTOR:
REPRESENTATIVE:
TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K estimated 80K
- 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: G01083

AREA: WD LATITUDE: 28.94195
BLOCK: 73 LONGITUDE: -88.715566

5. PLATFORM: D
RIG NAME:

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

6. ACTIVITY: EXPLORATION(POE)
 DEVELOPMENT/PRODUCTION (DOCD/POD)

7. TYPE:

- HISTORIC INJURY
 - REQUIRED EVACUATION
 - LTA (1-3 days)
 - LTA (>3 days)
 - RW/JT (1-3 days)
 - RW/JT (>3 days)
 - Other Injury

- FATALITY
- POLLUTION
- FIRE
- EXPLOSION

- LWC HISTORIC BLOWOUT
- UNDERGROUND
 - SURFACE
 - DEVERTER
 - SURFACE EQUIPMENT FAILURE OR PROCEDURES

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

9. CAUSE:

- EQUIPMENT FAILURE
- HUMAN ERROR
- EXTERNAL DAMAGE
- SLIP/TRIP/FALL
- WEATHER RELATED
- LEAK
- UPSET H2O TREATING
- OVERBOARD DRILLING FLUID
- OTHER _____

- 10. WATER DEPTH: 168 FT.
- 11. DISTANCE FROM SHORE: 22 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:

17. INVESTIGATION FINDINGS:

INCIDENT SUMMARY:

On May 27, 2019, a crane incident occurred on Cox Operating, L.L.C.'s (Cox) WD 73 D platform, Lease OCS-G 01083. A third-party Crane Operator caused damage to a crane boom during lifting operations. While picking up a small basket with tools for the FabCon construction Crew, the Crane Operator raised the boom while lowering the load to get the basket to the platform. During the process, the Crane Operator pressed the boom override, which allowed the boom to contact the boom stops. As a result, greater than \$25,000 of damage occurred. No injuries or pollution occurred.

SEQUENCE OF EVENTS:

On Crew change day, May 27, 2019, around 2:30 pm, the FabCon Crew prepared for Crew change by cleaning up and removing tools from the platform's +10 level. While the Crew worked on replacing horizontal grating near the stairway landing, the Crane Operator lowered a small wire basket using the single part, fast line (auxiliary line).

In order to bring the small wire basket closer to the west boat landing, the Crane Operator activated the high angle boom override until the boom made contact with the boom stops. The Crew then used tag lines to pull the basket onto the landing. The cargo basket was approximately 4' outward from the landing area. Next, the Crew loaded the basket with the tools. Then, the FabCon Signalman signaled the Crane Operator to swing out the basket. However, the Crane Operator noticed that the fast line cable was against an I-beam, so he boomed up more before swinging out. As the Crane Operator swung out the load, the Boat Captain on location announced on the radio that he saw something fall from the crane.

In addition, the rigger on the top deck stated he heard a noise, looked up, and saw something fall from the crane. The FabCon Supervisor identified the fallen object as a boom stop pad. The Crane Operator swung out, hoisted the basket up, and placed the basket on the top deck. Next, the Crane Operator stopped the operation and left the crane to inform his supervisor. The Crane Mechanic on location observed the damages to the boom heel, stopped the job, and took the crane out of service. He then returned the crane to the boom cradle.

Next, Cox function tested the crane's safety devices including the anti-two-block switches for the auxiliary and load line and the high angle boom kick out override. Cox found the devices in working condition.

Later, Cox performed a Root Cause Analysis (RCA) and submitted an Incident Analysis Report in eWell. As a corrective action, Cox instructed all their facilities not to use the override during normal operations. In addition, Cox initiated the development of a plan to remove overrides from their cranes.

BSEE INVESTIGATION:

Bureau of Safety and Environmental Enforcement (BSEE) Inspectors arrived on location on May 27, 2019 and began the investigation. The Inspectors took photos and reviewed documentation including Job Safety Analysis (JSAs), permits, Personnel On Board (POB), licenses, and reports.

On May 30, 2019, a BSEE Investigator arrived on location to continue the investigation. He received statements from the Crane Mechanic and the Cox Production Manager, who stated the damages were estimated between \$35,000 and \$80,000.

The primary high angle boom override allows the boom to continue to operate in spite of the safety design. The safety design causes the boom hydraulic lifting fluid to recirculate and halt movement. The secondary protection is the boom stops. The boom kick out or override angle is 78 degrees, approximately 8 inches from the boom stops. Continuing to boom up once the boom contacts the boom stops bends the boom.

The BSEE Investigator determined that the Crane Operator did not operate in a safe and workmanlike manner. The Crane Operator's inattention to the boom angle before booming up contributed to the incident. The Crane Operator and Crew may have been in a hurry due to it being Crew change day. In addition, the Crane Operator was a short service employee to the construction Crew. The Crane Operator disregarded the sign posted inside the crane cab that states overriding the boom kick out safety device while booming up or raising the load requires a prior supervisory approval. The Crane Operator did not request supervisory approval prior to overriding the high angle boom kick out safety device. Moreover, the FabCon Supervisor, Construction Consultant, Person In Charge (PIC), nor Field Foreman gave the Crane Operator permission to override the high angle kick out at any time during the operations. The Investigator also found that the JSA did not specify the details of the lift, such as lift starting point, lift path, boom angles, or the designated Signalman.

In conclusion, the crane incident occurred due to the override of the high angle boom kick out safety device. Additionally, the BSEE's investigation determined that the Crew's disregard for policy and inattention to the task caused the incident.

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

Human Performance Error: Inattention to task - While the boom was against the boom stops, the Crane Operator continued to boom up.

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

Human Performance Error: Rushing to get job completed - It was Crew change day and the Crane Operator and Crew may have been rushing operations.

Human Performance Error: Not following procedures - The Crane Operator failed to get supervisory approval prior to overriding the high angle boom kick out safety device.

Supervision: Inadequate work permits prepared - The JSA did not specify the details of the lift, such as lift starting point, lift path, boom angles, and the designated Signalman.

20. LIST THE ADDITIONAL INFORMATION:

The Construction Crew started the grating repair project at the +10 level on May 23, 2019. Although the new Crane Operator had 11 years of industry experience and 6 years of crane operation experience, he was new to the FabCon construction Crew and the platform. The Crane Operator received a copy of Cox's Crane and Rigging policy. Cox questioned him throughout the week to ensure he understood the policy. Throughout the 4 day project, the Crew lowered and raised many cargo baskets to the +10. To avoid use of the high angle override, rope lines (tally lines) were used to pull small 2X2 basket loads into the + 10 landing by hand. An air tugger pulled in larger 4x8 baskets on the boat landing area. The Crew reported no issues prior to this incident.

DATE OF ONSITE INVESTIGATION: 05/27/2019 and 05/30/2019.

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

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Crane boom heel, boom stops, and boom cables

After a thorough inspection, The Crane Mechanic on location determined the damages to the boom heel and the boom stops. In addition, there were damages to the boom cables.

ESTIMATED AMOUNT (TOTAL): **\$80,000**

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The BSEE New Orleans District has no recommendations for the Office of Incident Investigations (OII) at this time.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **YES**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

G-110 - Crane Operator failed to operate the crane in a safe and workmanlike manner. Human Performance Errors.

25. DATE OF ONSITE INVESTIGATION:

28. ACCIDENT CLASSIFICATION:

27-MAY-2019

26. INVESTIGATION TEAM MEMBERS:

29. ACCIDENT INVESTIGATION

Gerald Taylor-Investigator / Daniel Woods-Inspector / Brian Wilson-Inspector /

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

David Trocquet

27. OPERATOR REPORT ON FILE:

APPROVED

DATE:

21-JUN-2019