

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: **11-SEP-2019** TIME: **1330** HOURS

2. OPERATOR: **Byron Energy Inc.**

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR: **Enterprise Offshore Drilling**

REPRESENTATIVE:

TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING **Drawworks / Topdrive**
- 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:

4. LEASE: **G01194**

AREA: **SM** LATITUDE:

BLOCK: **58** LONGITUDE:

5. PLATFORM:

RIG NAME: **ENTERPRISE 263**

6. ACTIVITY:

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

7. TYPE:

INJURIES:

HISTORIC INJURY

OPERATOR CONTRACTOR

REQUIRED EVACUATION

LTA (1-3 days)

LTA (>3 days)

RW/JT (1-3 days)

RW/JT (>3 days)

FATALITY

Other Injury

POLLUTION

FIRE

EXPLOSION

LWC HISTORIC BLOWOUT

UNDERGROUND

SURFACE

DEVERTER

SURFACE EQUIPMENT FAILURE OR PROCEDURES

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

8. OPERATION:

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

9. CAUSE:

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

10. WATER DEPTH: **132** FT.

11. DISTANCE FROM SHORE: **55** MI.

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

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

14. SEA STATE: **4** FT.

15. PICTURES TAKEN:

16. STATEMENT TAKEN:

On 11 September 2019, Byron Energy Inc. (Byron) had a near miss incident involving the topdrive and traveling block on the Enterprise Offshore Drilling, LLC (Enterprise) 263 jack-up rig that was conducting well operations at South Marsh Island Block 58. There were no injuries and only limited damage to equipment during this incident. Byron reported this incident to the Bureau of Safety and Environmental Enforcement (BSEE) Lafayette District at 14:26 hours on 11 September 2019.

At 08:44 hours on 12 September 2019, a BSEE investigation team arrived at the Enterprise 263 rig to conduct an onsite incident investigation. BSEE met with the Enterprise Offshore Installation Manager (OIM) and was informed that at the time of the incident, Enterprise was running 7.625-inch casing in the hole with a casing running tool attached on the bottom of the topdrive. At approximately 13:00 hours on 11 September 2019, the Enterprise crew was making up for another casing run when the driller's-side drawworks brake became non-responsive. Consequently, the topdrive and traveling block began to descend to the rig floor. However, the Enterprise Driller was able to use the off-side drawworks brake to slow and control the descent of the topdrive and traveling block. The topdrive with the casing running tool dropped until it struck the top of the 7.625-inch casing in the hole. The traveling block also fell over slowly resting against the casing stabbing board.

Enterprise stopped all operations and discovered the driller's-side retention roll pin located on the drawworks drum brake band assembly was broken. This caused the brake band connecting pin to fall out of place leading to a brake band separation from the brake drum. The brake band retention roll pin failure caused the Enterprise Driller to lose his full braking ability on the driller's-side drawworks brake.

BSEE reviewed the Enterprise 263 drawworks preventative maintenance logs and noted that on 15 August 2019, an Enterprise Mechanic had discovered the drawworks brake band retention roll pin was backing out on the off-side brake band assembly. However, Enterprise's preventative maintenance program did not include the identification of a non-original equipment manufacturer (OEM) parts that did not meet manufacturer specifications.

BSEE inspected the rig floor and conducted photographic documentation of the incident scene and of the sheared non-OEM stainless steel retention roll pin. BSEE inspectors observed no visible damage to equipment during the rig floor inspection. BSEE gathered all available documents related to this incident and departed the rig at 14:28 hours on 12 September 2019.

The BSEE incident investigation team discovered an incorrect retention roll pin was installed in place of the required OEM brake band 5/16-inch by 4-inch retention cotter pin since technicians were unable the line up the pin holes on the OEM retaining pins. Post incident investigation also revealed incorrect retaining roll pins were installed in both drawworks brake band assemblies instead of the required OEM brake band 5/16-inch by 4-inch retention cotter pins.

On 19 September 2019, the Enterprise 263 OIM informed BSEE that Enterprise released an HSE Bulletin (Safety Alert 1017) about the installation of a non-OEM retaining pin that lead to a drawworks brake band failure.

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

The BSEE investigation team determined the probable cause of the incident was due to a non-OEM retention roll pin installed in place of an OEM brake band 5/16-inch by 4-inch retention cotter pin. Post-incident investigation also revealed incorrect retaining roll pins were installed in both drawworks brake band assemblies instead of the required OEM brake band cotter pins.

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

BSEE's incident investigation identified the following contributing causes: 1) the failure to recognize a non-OEM part was installed by a third-party contractor despite of an earlier brake band failure incident; 2) the holes of the retention and connecting pins were misaligned for proper installation; and 3) OEM cotter pins were not installed as required by the manufacturer.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

A non-OEM stainless steel retention roll pin was damaged during this incident. New OEM replacement pins were installed at no cost to the Operator.

A non-OEM stainless steel retention roll pin partially sheared during this incident.

ESTIMATED AMOUNT (TOTAL): \$

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The BSEE Lafayette District makes no recommendations to the Office of Incident Investigations considering BSEE sent out Safety Alert No. 369 on 25 October 2019 informing operators of the hazards of using non-OEM parts.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

This G-111 Incident of Noncompliance (INC) is issued to document that Byron Energy Inc. (Byron) failed to maintain all equipment in a safe condition to provide for the protection of the lease and associated facilities while conducting well operations at South Marsh Island 58 onboard the Enterprise Offshore Drilling, LLC 263 jack-up rig. On 11 September 2019, Byron failed to provide adequate supervision when a non-OEM retention roll pin was installed in the drawworks brake band assembly. As a result, the non-OEM retention roll pin broke causing the topdrive and traveling block to descend with limited braking control striking the casing in the hole and casing stabbing board; respectively.

25. DATE OF ONSITE INVESTIGATION:

28. ACCIDENT CLASSIFICATION:

12-SEP-2019

29. ACCIDENT INVESTIGATION PANEL FORMED: NO

26. INVESTIGATION TEAM MEMBERS:

OCS REPORT:

Jack Angelle / Troy Naquin (Report Author) /

27. OPERATOR REPORT ON FILE:

30. DISTRICT SUPERVISOR:

For Public Release

Robert Ranney

APPROVED

DATE:

30-JAN-2020