

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: 03-DEC-2017 TIME: 2215 HOURS

2. OPERATOR: Fieldwood Energy LLC

REPRESENTATIVE:
TELEPHONE:

CONTRACTOR:
REPRESENTATIVE:
TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K \$30,000
- 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: G13944

AREA: GI LATITUDE:
BLOCK: 116 LONGITUDE:

5. PLATFORM: A (HICKORY)
RIG NAME:

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

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: 326 FT.
- 11. DISTANCE FROM SHORE: 54 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:

On December 3, 2017 at 2215 hours, a fire occurred at the Fieldwood Energy LLC Grand Isle 116-A, OCS-G 13944 platform. During normal operations, the operators observed a flame coming from the #2 seawater lift pump electric motor. The fire was contained by utilizing a 30 pound purple K fire extinguisher and the platform fire water system was used to extinguish the fire. At the time of the fire, there was a total of six personnel onboard.

During normal operations, the night control room operators heard an unusual noise coming from outside. One of the operators went to investigate the noise, not knowing where it was originating from. The operator was looking down through the grating, noticing an orange flame coming from the #2 seawater lift pump.

The operator immediately alerted the persons onboard using the facility's intercom system to make them aware of a fire on the facility. The operator immediately turned off the #2 seawater lift pump and utilized a 30 lb fire extinguisher (purple K) near the seawater pump to contain the fire. In less than a minute, the Person In Charge (PIC) arrived on the scene and activated the fire water system to extinguish the fire. The first responders waited at least 30 minutes in the area for the cool down period. The cool down period was to ensure the pump did not reignite. The #2 seawater lift pump was placed out of service until the Fieldwood investigation could determine the root cause of the fire.

During the BSEE Investigation on December 4, 2017, the New Orleans District Investigator contacted the facility and interviewed the PIC by phone. During the phone interview, the PIC stated that the #2 seawater lift pump was still down and out of service. The PIC also stated that, the #2 seawater lift pump (cooling water) experienced a bearing failure. This caused an excessive heat buildup allowing some oil to ignite.

On December 12, 2017, BSEE Inspectors arrived on location to investigate the fire that occurred on December 3, 2017. During the investigation, the PIC informed the inspectors that at the time of the fire, the operators did not activate the Emergency Shutdown (ESD) System or muster on the facility. The operators only activated the fire water system at the time of the fire to ensure the fire was addressed.

On November 16, 2017, the #1 seawater lift pump electric motor was identified as having a lube oil leak. That day, the Seawater Lift Pump #1 electric motor was removed and sent in for servicing. The seawater lift pump #2 was put online for 18 continuous days until the night of the fire. The PIC of the facility stated that before the start of the seawater lift pump #2 on November 16th, the seawater pump electric motor lube oil reservoir level was approximately 3/4 full.

The operators stated they only monitor the temperature of the cooling water downstream of the heat exchanger. They do not monitor the lube oil reservoir levels for the seawater lift pump motors. The seawater circulates from the pumps through a heat exchanger then overboard. The heat exchanger has a Temperature Safety Alarm (TSA) for the line leading from the heat exchanger to the Cooling Medium Surge Tank. The TSA alarms at 115 degrees F, but does not have a shut-in function. According to the PIC and maintenance foreman, there was no inspection and maintenance program for the electric motors on the seawater lift pumps. As a result of the fire, the Fieldwood Energy maintenance crew has put in place a scheduled maintenance program for the seawater lift pump electric motors.

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

- The seawater pumps were identified to have inadequate preventive maintenance and monitoring.

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

- A leak in the motor housing caused the lube oil reservoir level to drop.
- The lack of lube oil lead to excessive heat buildup in the motor's bearing.
- The excessive heat ignited the oil in the motor housing.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

#2 seawater lift pump electric motor

The excessive heat ignited the oil in the motor housing.

ESTIMATED AMOUNT (TOTAL): \$30,000

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

- BSEE New Orleans District recommends that the operator monitor all lube oil reservoir levels as part of their maintenance and monitoring program.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **NO**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

25. DATE OF ONSITE INVESTIGATION:

04-DEC-2017

26. INVESTIGATION TEAM MEMBERS:

**Danial Woods / Jonathan Fraser / Pierre
Lanoix /**

28. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

29. DISTRICT SUPERVISOR:

David Trocquet

For Public Release

APPROVED

DATE: **09-JUL-2018**