

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: 28-NOV-2017 TIME: 1400 HOURS

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

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: G02893

AREA: EI LATITUDE:
BLOCK: 24 LONGITUDE:

5. PLATFORM:
RIG NAME:

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

7. TYPE:

- HISTORIC INJURY
- REQUIRED EVACUATION 1
- 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

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

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On November 28, 2017 at approximately 1400 hours an employee received burns to his face and neck while attempting to ignite a Heater Treater.

Operators observed the NBK-2000 Heater Treater surging. The operators shut in the Heater Treater and completed a Job Safety Analysis (JSA) as well as paperwork for the lock out tag out procedure (LOTO).

The operators hooked the crane's auxiliary line to the flame arrestor utilizing a nylon strap so it could be removed to gain access to the ignitor components. The LOTO procedure was in place and the manual fuel valve was locked closed. The Piping Isolation Procedure specifies double block and bleed but during this operation single block and bleed was utilized.

One of the operators placed a ladder in front of the area where the flame arrestor was located to assess the problem and discovered the ignitor wire was disconnected. The wire was reconnected and the ignitor was tested with the main fuel valve closed to verify it was attempting to ignite. The flame arrestor was bolted back in place and the ignitor was tested again with the fuel valve in the closed position.

The operator located on the ladder climbed down and preceded to the ignitor box. The second operator climbed the ladder to verify the pilot was lit. The second operator attempted to verify the pilot was lit through a one inch sight glass but could not get a visual. He removed three of the four nuts off of the 8 ½ inch sight glass cover plate to see inside of the treater.

It is unclear if the second operator communicated that the 8 1/2 inch cover had been removed from the treater. The second operator placed his face in front of the opening as the gas accumulated in the treater and another attempt was being made to ignite the pilot. As the gas lit, fire came through the opening coming in contact with the second operators face and neck.

The injured operator was transported to a medical facility to receive additional treatment. He was diagnosed with 1st and 2nd degree burns.

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

*The employee created the hazard by removing the 8 ½ inch sight glass cover that provided protection from a flash fire and placed his face in the opening. The cover was removed while the ignitor was in service and in the process of lighting the pilot.

*As per the Cox Heater Treater Operating Procedure - Job Preparation - Step 3. Have a clear understanding of consequences of deviation and corrective actions. Prior to removing the cover, the employee should have utilized the stop work and communicated his intentions with the other employee involved in the operation.

*Lessee failed to update steps 10 through 15 that detailed the start-up of the Heater Treater that should have been covered in the Cox Heater Treater Operating Procedure. The burner portion of the treater was taken out of service for a period of time and the steps were removed from the Operating Procedure. As the burner was placed back in service, the Operating Procedure was not updated.

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

As per the Cox Heater Treater Operating Procedure - Job Preparation - Step 4. Review applicable Job Safety Analysis (JSA) and Cox Documents prior to starting any tasks. The lessee failed to prepare a JSA that covered the specific potential hazards

associated with troubleshooting the ignition system while the system was in an "in service" status. The FA was reassembled and the lessee "put burner back in service" as per the last step in their JSA. This specific job and JSA were now in a finalized and completed status. The JSA should have been revisited or a new JSA completed (as per company policy) prior to the troubleshooting of an in service ignition system, which failed to happen.

20. LIST THE ADDITIONAL INFORMATION:

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21. PROPERTY DAMAGED: NATURE OF DAMAGE:

None NA

ESTIMATED AMOUNT (TOTAL): \$

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The BSEE Lafayette District office makes no recommendations to the Regional Office of Incident Investigations (OII).

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

G110 (C) Does the lessee perform all operations in a safe and workmanlike manner and provide for the preservation and conservation of property and the environment? During BSEE Incident Investigation the lessee failed to operate in a safe and workmanlike manner on 28-NOV-2017 during the commencement of bringing EAW-2000 Treater Fired Component back in service on the NBK-2000 Heater Treater. During ignition operations, a flash fire occurred injuring (burning) one (1) employee and posing a severe threat to human life, equipment and the environment.

25. DATE OF ONSITE INVESTIGATION:

01-DEC-2017

28. ACCIDENT CLASSIFICATION:

26. INVESTIGATION TEAM MEMBERS:

Wade Guillotte / John Mouton

29. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

Elliott Smith

27. OPERATOR REPORT ON FILE:

APPROVED

DATE :

21-FEB-2018

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