

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: **16-MAR-2021** TIME: **2030** 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: **G02323**

AREA: **EI** LATITUDE:
 BLOCK: **360** LONGITUDE:

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

5. PLATFORM: **C**
 RIG NAME:

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

9. CAUSE:

7. TYPE:
 INJURIES:

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

<input type="checkbox"/> HISTORIC INJURY	OPERATOR	CONTRACTOR
<input checked="" type="checkbox"/> REQUIRED EVACUATION	0	1
<input type="checkbox"/> LTA (1-3 days)		
<input checked="" type="checkbox"/> LTA (>3 days)		1
<input type="checkbox"/> RW/JT (1-3 days)		
<input type="checkbox"/> RW/JT (>3 days)		
<input type="checkbox"/> FATALITY		
<input type="checkbox"/> Other Injury		

- POLLUTION
- FIRE
- EXPLOSION

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

10. WATER DEPTH: **307** FT.
11. DISTANCE FROM SHORE: **77** 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 16 March 2021, at approximately 2030 hours, an injury occurred on Cox Operating L.L.C.'s OCS-G02323 Eugene Island (EI) 360-C.

Sequence of Events:

On 16 March 2021, at approximately 2000 hours, an alarm sounded as the platform and its gas compressor shut in. It was determined from the Compressor's Pneumatic Components Panel, that the compressor shut-in due to vibration from the cooling fan. The Mechanic, a B-Operator and the Lead Operator, proceeded to the compressor to restart the engine and bring the facility back online. The B-Operator arrived at the compressor panel and pulled the E-stop relay to stop all input sources to the panel. The E-stop relay prevents the compressor from being put back in service until it is reset again at the panel. The Lead Operator proceeded to the well deck to shut-in the wing valves on the wells prior to placing the platform back in service. The Mechanic went to the rear of the compressor to locate the vibration. After shutting the wing valves, the Lead Operator met the Mechanic at the rear of the compressor. The Mechanic asked to borrow the Lead Operators' flashlight and then entered the housing of the cooling fan through an access door. The Mechanic stepped into the housing wearing mechanic brand gloves. The Mechanic placed his left hand on the compressor fan belt which was still turning at a slow rotation after the compressor shut down. The Mechanics left hand was pulled between the belt and the sheave. The B-Operator walked to the rear of the compressor and witnessed the mechanic being lifted by his left hand into the sheave. As the Mechanics left hand reached the top of the sheave, his weight pulled the fan in the opposite direction causing his left hand to be released. The Mechanic exited the compressor's cooling fan housing and first aid was administered to his left hand. The Mechanic was flown to the shorebase where he was escorted by his employer to a medical facility. It was discovered that the Mechanic suffered two fractured fingers on his left hand.

BSEE INVESTIGATION:

On 17 March 2021, the Bureau of Safety & Environmental Enforcement (BSEE) Lafayette District (LD) Accident Investigator (AI) received a phone call notification of an incident with injury occurring on Cox's EI 360-C Facility. The AI requested additional information pertaining to the incident such as Operating Practices and other relevant documents from Cox and its contractor.

On 22 March 2021, the BSEE LD AI and a BSEE LD Production Inspector performed an on-site investigation of the event. During the on-site investigation, photographic documentation of the incident location was taken, procedures were requested, and witness statements of relevant personnel were taken.

The AI found that stop work authority should have been implemented prior to the mechanic entering the compressor cooling fan housing. A Job Safety Analysis (JSA) should have been filled out prior to the Mechanic entering the compressor cooling fan housing to troubleshoot the vibration. Lockout Tagout (LOTO procedures) should have been implemented on the compressor prior to entering the compressor cooling fan housing. The AI researched into EI 360-C/E Facility's Operating Procedure as well as the D-5 Energy Isolation LOTO Policy's subsection titled Stored Energy: "Following the application of lockout or tagout devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained, and otherwise rendered safe. If there is a possibility of reaccumulating stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists".

Conclusion:

BSEE found that the probable cause of the injury was due to the Mechanic entering the compressor cooling fan housing and grabbing the fan belt that was still in motion. Additional probable cause includes a failure to implement Stop Work Authority prior to the Mechanic entering the compressor cooling fan housing.

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

- **Human Performance Error: Inattention to task:** The Mechanic entered the compressor cooling fan housing and grabbed the fan belt that was still in motion.
- **Human Performance Error- BSEE** also found that the probable cause of the injury was a failure to implement Stop Work Authority prior to the Mechanic entering the compressor cooling fan housing.

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

- **According to the Cox - D-5 Energy Isolation LOTO Policy subsection titled Stored Energy:** "Following the application of lockout or tagout devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained, and otherwise rendered safe. If there is a possibility of reaccumulating stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists".
- **A JSA should have been implemented to allow the Mechanic to enter the compressor cooling fan housing.**

20. LIST THE ADDITIONAL INFORMATION:

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:

G-110-C

On March 16, 2021, Cox Operating, LLC failed to perform operations in a safe and workmanlike manner as follows: An injury occurred while a mechanic was attempting to investigate an alarm caused by a vibration on the compressor cooling fan. The mechanic arrived at the rear of the compressor to locate the cause of the vibration. The lead operator went to the wellbay to shut the wing valves and the B-operator went to the compressor panel and pulled the E-stop relay. The E-stop relay prevents the compressor from being put back in service until it is reset again at the panel. After shutting the wing valves, the lead operator accompanied the mechanic at the rear of the compressor. The mechanic asked the lead operator to borrow his flashlight and entered the housing of the cooling fan through an access door. As the mechanic entered the housing, he placed his

hand on the compressor fan belt which was still turning at a slow rotation after the compressor shut down. The mechanics left hand was pulled between the belt and the sheave. The mechanic was wearing gloves at the time of the incident.

The mechanic exited the compressor cooling housing and first aid was applied to the mechanics hand. The mechanic was flown to the heliport where the mechanic was escorted by his employer to a medical facility. It was discovered that the mechanic suffered two fractured fingers on his left hand.

For Public Release

25. DATE OF ONSITE INVESTIGATION:

22-MAR-2021

28. ACCIDENT CLASSIFICATION:

26. INVESTIGATION TEAM MEMBERS:

M. Hester / W. Guillotte /

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

OCS REPORT:

27. OPERATOR REPORT ON FILE:

30. DISTRICT SUPERVISOR:

Robert Ranney

APPROVED

DATE:

22-JUL-2021