UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

1. OCCURRED
   DATE: 21-OCT-2020  TIME: 0647  HOURS
   STRUCTURAL DAMAGE

2. OPERATOR: Cox Operating, L.L.C.
   REPRESENTATIVE:
   TELEPHONE:
   CRANE
   DAMAGED/DISABLED SAFETY SYS.
   OTHER LIFTING

3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR ON SITE AT TIME OF INCIDENT:

4. LEASE: G00985
   AREA: EI  LATITUDE:
   BLOCK: 259  LONGITUDE:
   H2S/15MIN./20PPM

5. PLATFORM: A
   RIG NAME:

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

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)
   PATALITY
   Other Injury

8. OPERATION:

9. CAUSE:
   EQUIPMENT FAILURE
   HUMAN ERROR
   EXTERNAL DAMAGE
   SLIP/TRIP/FALL
   WEATHER RELATED
   LEAK
   UPSET H2O TREATING
   OVERBOARD DRILLING FLUID

10. WATER DEPTH: 170 FT.
11. DISTANCE FROM SHORE: 51 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

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17. INVESTIGATION FINDINGS:

On October 21, 2020 at approximately 0647 hours, Cox Operating L.L.C. operators at EI 259C observed a fire at EI 259A which is an unmanned platform belonging to Cox Operating L.L.C.

After observing the fire at EI 259A, operators at EI 259C boarded a helicopter to investigate. The operators found a fire coming from the exhaust of the diesel generator. Once the operators landed, the fuel supply to the generator was shut off by the operator and the fire was extinguished using a 300 lbs. wheel unit. A Temperature Safety Element (TSE) on a nearby fuel tank melted causing the facility to shut in. Operators discovered that the ESD on the generator package tripped, but the generator continued to run even though the air shut off tripped. Operators found no damage to the facility due to the fire. The generator was loaded on a motor vessel and sent to a facility in Broussard La to dismantle the generator and attempt to discover why the generator continued to run.

The investigation report from Pelstar showed that the safety system did try to shut the air shut off valve which happens when an engine overspeed event occurs. Equipment failure of the governor actuator linkage allowed an engine overspeed event to occur. After the overspeed event occurred, the turbo locked up and oil seals leaked on both sides of the turbo. The air shut off valve failed to perform its designed function when the engine overspeed event was detected allowing the engine to continue running, thereby increasing the exhaust system temperature. An exhaust leak continually built up carbon which was ignited over time by high exhaust system temperatures. The safety system did sense the engine overspeed and in response tried to close the air shut off valve, but the valve failed to fully close. Pelstar found oil on the intake side of the turbo and air shut off valve. The oil gummed up an o-ring seal on the air shut off valve prohibiting the valve from closing fully which allowed the engine to continue running.

As per the last Preventive Maintenance Inspection, which was conducted on January 19, 2020, it was suspected that there was an exhaust leak around the hot side of the turbo due to signs of soot according to the mechanic’s notes. According to the lead Mechanic, the mechanic conducting the inspection failed to properly document the exhaust leak in the Cox PM Mapcon system.

Documenting the deficiencies that were discovered on the generator would have flagged the system to make the corrections that occurred during the run time of the previous nine-month period. It is worth noting that the operator created a position as a Mapcon auditor and trainer for the mechanics. The auditor will review every Preventive Maintenance (PM) report to ensure full completion to avoid this type of incident from reoccurring. The Mechanical Supervisor waived the Preventive Maintenance Inspection’s following the January 19, 2020 inspection due to the low amount of engine hours from the previous quarter.

The BSEE Lafayette District conducted an onsite investigation on October 22, 2020. The BSEE Lafayette District also conducted an onsite investigation at the Pelstar facility in Broussard La on December 2, 2020.

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

Equipment failure of the governor actuator linkage allowed an engine overspeed event to occur. After the overspeed event occurred, the turbo locked up and oil seals leaked on both sides of the turbo. Eventually enough oil and carbon built up in the exhaust to start a fire within the exhaust from the heat generated from the combustion of the engine.

The air shut off valve failed to perform its designed function when the engine...
overspeed event was detected allowing the engine to continue running, thereby 
increasing the exhaust system temperature.
An exhaust leak continually built up carbon which was ignited overtime by high exhaust 
system temperatures.

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

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED: 

   NATURE OF DAMAGE: 

   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:

   On October 21, 2020, Cox Operating, LLC failed to perform operations in a safe and 
   workmanlike manner as follows: After observing the fire at EI 259A, operators at EI 259C 
   boarded a helicopter to investigate. The operators found a fire coming from the exhaust of 
   the diesel generator. Once the operators landed, the fuel supply to the generator was shut 
   off by the operator and the fire was extinguished using a 300 lbs. wheel unit. A TSE on a 
   near by fuel tank melted causing the facility to shut in. Operators discovered that 
   the ESD on the generator package tripped, but the generator continued to run even 
   though the air shut off tripped. Operators found no damage to the facility due to the 
   fire.

   As per the last Preventive Maintenance Inspection, which was conducted on January 19, 
   2020, it was suspected that there was an exhaust leak around the hot side of the turbo due 
   to signs of soot according to the mechanic’s notes. The mechanic failed to properly 
   document the exhaust leak in the Cox Preventive Maintenance Mapcon system. Documenting 
   the generator’s deficiencies would have flagged the system that corrections were required. As 
   a result of the operator’s investigation, a position was created as a Mapcon auditor and 
   trainer for the mechanics. This auditor will review every Preventive Maintenance Report to 
   ensure full completion of the repairs to prevent this type of incident from reoccurring.

25. DATE OF ONSITE INVESTIGATION: 26. INVESTIGATION TEAM MEMBERS:

   22-OCT-2020  
   W. Guillotte / J. Mouton / C. Morvant / 

MMS - FORM 2010 
EV2010R 
FOR PUBLIC RELEASE
27. OPERATOR REPORT ON FILE:

29. ACCIDENT INVESTIGATION
   PANEL FORMED: NO

   OCS REPORT:

30. DISTRICT SUPERVISOR:
   Robert Ranney

APPROVED
DATE: 27-APR-2021