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: **21-OCT-2020** TIME: **0647** 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:

4. LEASE: **G00985**
   AREA: **EI** LATITUDE:
   BLOCK: **259** LONGITUDE:

5. PLATFORM: **A**
   RIG NAME:

6. ACTIVITY:
   - [ ] EXPLORATION(POE)
   - [X] 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
   - [X] FIRE
   - [ ] EXPLOSION

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

   COLLISION [ ] HISTORIC [ ] >$25K [ ] <=$25K

8. OPERATION:
   - [X] PRODUCTION
   - [ ] DRILLING
   - [ ] WORKOVER
   - [ ] COMPLETION
   - [ ] HELICOPTER
   - [ ] MOTOR VESSEL
   - [ ] PIPELINE SEGMENT NO.
   - [ ] OTHER

9. CAUSE:
   - [X] EQUIPMENT FAILURE
   - [ ] HUMAN ERROR
   - [ ] EXTERNAL DAMAGE
   - [ ] SLIP/TRIP/FALL
   - [ ] WEATHER RELATED
   - [ ] LEAK
   - [ ] UPSET H2O TREATING
   - [ ] OVERBOARD DRILLING FLUID
   - [ ] OTHER _____

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:

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 overtime 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 waivered 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:

NA

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:

22-OCT-2020

28. ACCIDENT CLASSIFICATION:

26. INVESTIGATION TEAM MEMBERS:

W. Guillotte / J. Mouton / C. Morvant /

27. OPERATOR REPORT ON FILE:

29. ACCIDENT INVESTIGATION PANEL FORMED: NO

OCS REPORT:

30.- DISTRICT SUPERVISOR:

Robert Ranney

APPROVED DATE: **27-APR-2021**