

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: **02-AUG-2020** TIME: **1925** HOURS

2. OPERATOR: **BP Exploration & Production Inc.**

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:

AREA: **MC** LATITUDE:
BLOCK: **778** LONGITUDE:

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

5. PLATFORM: **A(Thunder Horse)**
RIG NAME:

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

9. CAUSE:

7. TYPE:

INJURIES:

- HISTORIC INJURY
 - REQUIRED EVACUATION
 - LTA (1-3 days)
 - LTA (>3 days)
 - RW/JT (1-3 days)
 - RW/JT (>3 days)
 - FATALITY
 - Other Injury
- OPERATOR CONTRACTOR

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

- POLLUTION
- FIRE
- EXPLOSION

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

- 10. WATER DEPTH: **6200** FT.
- 11. DISTANCE FROM SHORE: **66** 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 2 August 2020, the BP production operators prepared a Job Safety Analysis (JSA) to load a pigging device into the oil export pig launcher KAH- 4190, Department of Transportation Segment # 13633. The operators gathered tools and handheld portable gas detectors for the job task. The operators started cracking the door open, the handheld portable gas detectors that were used did not alarm. The operators then looked up at the top of the launcher and noticed a gas cloud coming out. The operators immediately shut the door to the launcher. The gas released set off the combustible gas detector ASH 962-102, located 3 feet above the launcher. The detector reached 88% of the Low Explosive Limits (LEL). The data from the computer indicated that the cloud dissipated back to 0% LEL within 2 minutes. When ASH 962-102 activated, 227 personnel onboard reported to their muster stations and waited for further instructions. The operators began the investigation on how the incident occurred and the Offshore Installation Manager reported the incident to BP management.

BSEE Investigation:

On 4 August 2020, one Bureau of Safety and Environmental Enforcement (BSEE) Accident Investigator performed an investigation. The BSEE Investigator collected witness statements, the Job Safety Analysis (JSA), trending data, gas alarm summary, risk assessment, and oil export pig launcher procedure documents from BP Exploration & Production Inc.

BSEE Accident Investigator found from 26 July 2020 to 28 July 2020, the pig launcher door seal ring was replaced, adjusted and leak tested with nitrogen per standard operating procedure. The operators monitored for leaks around the door seal over a 5-day period and no gas or oil leaks were observed. Based on the operator's observation, it was believed that gas was not present in the launcher. The pig launcher door has an Interlock Key system that does not allow the pig launcher door to open under pressure. In addition, multiple low point and high point bleeds were checked on the pig launcher just prior to opening the pig launcher door with no fluids being witnessed. The gas cloud may have released from oil residue in the pig trap. The Pig Launcher was not purged with nitrogen immediately before opening the pig door. The launcher had been in the isolated state for 5 days and it is probable that the oil residue generated a hazardous atmosphere in the top of the trap.

Conclusion:

Oil residue in the pig trap may have caused a hazardous accumulation of gas to be released from the pig trap when the door was opened. This could have been prevented if the proper procedures were followed which include purging the trap with nitrogen before opening the door. The response to the gas release was properly executed and all safety devices operated as designed.

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

- Human Performance Error - Not following proper procedures: As per the procedure, the Pig Launcher was not purged with nitrogen gas before opening the pig launcher door. The pig launcher had been in the isolated state for 5 days and it is probable that the oil residue generated a hazardous atmosphere in the top of the trap.

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

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

25. DATE OF ONSITE INVESTIGATION:

28. ACCIDENT CLASSIFICATION:

26. INVESTIGATION TEAM MEMBERS:

29. ACCIDENT INVESTIGATION

Pierre Lanoix /

PANEL FORMED: **NO**

27. OPERATOR REPORT ON FILE:

OCS REPORT:

30. DISTRICT SUPERVISOR:

David Trocquet

APPROVED

DATE:

02-DEC-2020