

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-JUN-2023 TIME: 0920 HOURS

2. OPERATOR: Shell Offshore Inc.

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR:

REPRESENTATIVE:

TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K ESP-A VFD Damaged
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER

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

4. LEASE: G17565

AREA: AC LATITUDE:

BLOCK: 857 LONGITUDE:

5. PLATFORM: A(Perdido)

RIG NAME:

6. ACTIVITY: EXPLORATION(POE)
 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

FIRE

EXPLOSION

LWC HISTORIC BLOWOUT

UNDERGROUND

SURFACE

DEVERTER

SURFACE EQUIPMENT FAILURE OR PROCEDURES

COLLISION HISTORIC >\$25K <=\$25K

8. OPERATION:

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO.
- DECOMMISSIONING
- PA PIPELINE SITE CLEARANCE
- TA PLATFORM
- 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: 7835 FT.

11. DISTANCE FROM SHORE: 140 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 June 21, 2023, at 0930 hours, Shell Offshore Inc. (Shell) reported a fire occurred at Alaminos Canyon (AC) 857, Perdido Spar, lease G-17565. The Variable Frequency Device A (VFD-A) failed releasing smoke and setting off smoke detectors in the Subsea Motor Control Center room (Subsea MCC), this caused an automated facility shut-in and personnel muster. The estimated cost of replacement is \$65,000.00, there were no injuries or pollution reported with this incident.

On June 22, 2023, the Bureau of Safety and Environmental Enforcement (BSEE) Lake Jackson District Well Operations Accident Investigator and Production Lead Inspector conducted an onsite investigation at AC 857 Perdido Spar. They collected documentation, maintenance records, alarm logs and one-line drawings of the effected circuit and photographs were taken.

The Shell investigation concluded the failure was due to the to the B-phase on the reactor of the VFD-A had failed to ground. The reactor failure, released smoke, this resulted with smoke activating smoke detectors in the Subsea MCC room, the automated system shut-in the facility as designed. Facility personnel mustered, as the Shell Fire Team was sent to the Subsea MCC room. Smoke was evident in the room, but there was no visible evidence of charring, and the Fire Team did not extinguish any fires. Electrician was dispatched to the MCC room to begin surveying the control cabinets, no notable temperature difference on outside of the cabinets. Offshore Installation Manager (OIM) gave permission to open cabinets, for further survey, cabinet A had a temperature of 350 F (Fahrenheit), and cabinets B, C and D cabinets 210 F was observed. The Electrician then isolated, locked, and tagged out cabinet A from the power source and taken out of service, so that remaining equipment could be returned to service. A Fire watch was established at the MCC room, and the community was allowed to leave the muster, but not allowed to return to work. BSEE Investigators agree with Shell Offshores' conclusions, that the fire was due to the failure of the B-phase reactor of the VFD-A to ground, causing smoke to be released and setting off smoke detectors.

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

Failure of the Variable Frequency Device-A.

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

None

20. LIST THE ADDITIONAL INFORMATION:

None

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

Variable Frequency Device-A

Fire Damage

ESTIMATED AMOUNT (TOTAL): **\$65,000**

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

Siemens to investigate why the reactor thermal switch did not trip the drive on over temperature.

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

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

None

25. DATE OF ONSITE INVESTIGATION:

22-JUN-2023

28. ACCIDENT CLASSIFICATION:

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26. Investigation Team Members/Panel Members:

Alvin O'Brien / Perry Brady /

27. OPERATOR REPORT ON FILE:

29. ACCIDENT INVESTIGATION PANEL FORMED:

NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

Stephen Martinez

APPROVED

DATE:

08-AUG-2023