

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: 03-JAN-2023 TIME: 2217 HOURS

2. OPERATOR: Shell Offshore 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 **Damaged UPS 7560**

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

8. OPERATION:

4. LEASE: G17565

AREA: AC LATITUDE:  
BLOCK: 857 LONGITUDE:

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

5. PLATFORM: A(Perdido)  
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: 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:

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

17. INVESTIGATION FINDINGS:

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On January 3, 2023, at 2210 hours, Shell Offshore Inc. (Shell) reported a fire occurred at Alaminos Canyon (AC) 857, Perdido Spar, lease OCSG-17565. The Universal Power Supply (UPS- 7560) failed releasing smoke and setting off smoke detectors in the UPS room. This caused an automated facility shut-in and full power loss at the Perdido Spar. The estimated cost of repair is \$56,830.00. There were no injuries or pollution reported with this incident.

On January 4, 2023, the Bureau of Safety and Environmental Enforcement (BSEE) Lake Jackson District Well Operations Accident Investigator and Supervisory 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 direct current (DC) capacitor on the UPS-7560. The capacitor burst upon failure, releasing smoke, while spraying material onto other components within the inverter housing. The fault caused arcing/sparking. This resulted in activation of the smoke detectors in the UPS room, and power to the living quarters being automatically shunt tripped by the safety system. The automated system shut-in the facility as designed. Facility personnel mustered, as the Shell Fire Team was sent to UPS room. Smoke was evident in the room, but the source was unclear as no power breakers were tripped. There was no visible evidence of charring, and the Fire Team did not see a fire.

The Electrical Team went to the Electrical Motor Control Center to isolate all the power feeds to UPS and DC power chargers. The electrical team donned proper personal protective equipment and maintained good communication with the control room as the electrical team began troubleshooting. Power was intermittently restored to the Perdido Spar by turning on the power feed breakers one at a time. When powering up UPS-7560, the displayed showed the failed device to be the inverter. The failed device was identified as there was arcing seen coming out of the top. After energy was released and arcing subsided, the breakers for the UPS 7560 were safely opened and locked out. The UPS 7560 was placed in by-pass and taken out of service so that remaining equipment could be powered up. Shell reported the estimated cost of damage to be \$56,830.00 and that it will take seven to nine weeks to receive parts for repairs to be made. The Shell Perdido SPAR is currently using a spare circuit to provide power to the quarters in the meantime.

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

Failure of the Universal Power Supply, UPS-7560 resulted in a loss of power.

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

None

20. LIST THE ADDITIONAL INFORMATION:

None

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

Universal Power Supply 7560 Unserviceable.

Fire damage

ESTIMATED AMOUNT (TOTAL): \$56,830

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

Preventative Maintenance Plan (PMI) to replace all fans, AC and DC capacitors on like units.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

None

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25. DATE OF ONSITE INVESTIGATION:

**04-JAN-2023**

28. ACCIDENT CLASSIFICATION:

26. Investigation Team Members/Panel Members:

**David Kearns / Perry Brady /**

29. ACCIDENT INVESTIGATION PANEL FORMED:

**NO**

27. OPERATOR REPORT ON FILE:

OCS REPORT:

30. DISTRICT SUPERVISOR:

**Stephen Martinez**

APPROVED

DATE:

**22-FEB-2023**