

UNITED STATES DEPARTMENT OF THE INTERIOR  
MINERALS MANAGEMENT SERVICE  
GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

1. OCCURRED

DATE: 21-JAN-2004 TIME: 0314 HOURS

2. OPERATOR: BP Exploration & Production  
Inc.

REPRESENTATIVE:

TELEPHONE:

3. LEASE: G05000

AREA: MI LATITUDE:

BLOCK: 622 LONGITUDE:

4. PLATFORM: D

RIG NAME ENSCO 74

5. ACTIVITY:  EXPLORATION (POE)

DEVELOPMENT/PRODUCTION  
(DOCD/POD)

6. TYPE:  FIRE

EXPLOSION

BLOWOUT

COLLISION

INJURY NO. 0

FATALITY NO. 0

POLLUTION

OTHER Crane Boom

7. OPERATION:  PRODUCTION

DRILLING

WORKOVER

COMPLETION

MOTOR VESSEL

PIPELINE SEGMENT NO. \_\_\_\_\_

OTHER \_\_\_\_\_

8. CAUSE:  EQUIPMENT FAILURE

HUMAN ERROR

EXTERNAL DAMAGE

SLIP/TRIP/FALL

WEATHER RELATED

LEAK

UPSET H2O TREATING

OVERBOARD DRILLING FLUID

OTHER \_\_\_\_\_

9. WATER DEPTH: 89 FT.

10. DISTANCE FROM SHORE: 14 MI.

11. WIND DIRECTION:

SPEED: M.P.H.

12. CURRENT DIRECTION:

SPEED: M.P.H.

13. SEA STATE: FT.

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

CITY: STATE:

TELEPHONE:

CONTRACTOR: Ensco Offshore Co.

CONTRACTOR REPRESENTATIVE/  
SUPERVISOR ON SITE AT TIME OF INCIDENT:

CITY: STATE:

TELEPHONE:

17. DESCRIBE IN SEQUENCE HOW ACCIDENT HAPPENED:

This crane needed to be in tip top shape for an uncoming lift of 49000# coil tubing package. The crane operator noticed the crane was making a noise, and the electric motor speed was not working correctly. The electrician was called. While inspecting the crane, the electrician noticed oil dripping from the boom motor seal. He in turn notified the mechanic that the seal was leaking, and the decision was made to replace the seal in the electric boom motor.

The mechanic then locked-out the power and acquired all of the work permits required for this task. Ensco uses Job Hazard information, Work instruction, and a Permit to Work (1-Cold Work Permit & 2-Isolation Certificate). These take the place of a JSA.

The mechanic supported the motor and un-bolted the motor. When he slid the motor out of the splines of the gear box, the crane boom fell across a tank of liquid nitrogen. The tank lifting cradle and support took the impact of the boom, and the outer tank, while bent, was not ruptured.

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

The electric motor and brake are designed and built together so that when power applied to the electric motor, the brake releases and the motor applies torque. When electric power is removed, the electric/mechanical brake is set.

The mechanic did not read the procedures for removal of the motor for this mode of crane. Other types have brake bands on the cable drum. The mechanic failed to remove the load off the boom, which consisted of the boom, boom lifting pulleys and cable.

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

Mechanic failed to read the manufacturers recommended motor removal instructions, by cradling the boom and removing all loads from the motor and gear train.

20. LIST THE ADDITIONAL INFORMATION:

The mechanic stated that when looked in the computer for this information, the information was limited to general motor removal and not specific to this motor. None of the tree cranes was equipped with boom rest or cradles on the MODU.

NOTE; USCG IS THE AUTHORITY HAVING JURISDICTION ON MODU'S.

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

- 1) Follow the manufacturer's recommended plans for removal and installation .
- 2) Place boom in boom rest or cradle or use emergency holding pin.
- 3) Removed all load from the motor and gear train.
- 4) Now turn off main electrical power.

No recommendations to MMS

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

25. DATE OF ONSITE INVESTIGATION:

22-JAN-2004

26. ONSITE TEAM MEMBERS:

Jim Hail / James Barnard /

29. ACCIDENT INVESTIGATION

PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

Pausinaf for Smith

APPROVED

DATE: 14-MAY-2004