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

ACCIDENT INVESTIGATION REPORT

1. OCCURRED
   DATE: **17-JAN-2008** TIME: **0845** HOURS

2. OPERATOR: **McMoRan Oil & Gas LLC**
   REPRESENTATIVE: **Wyatt Tate**
   TELEPHONE: **(337) 735-9110**
   CONTRACTOR: **ISLAND OPERATORS CO. INC.**
   REPRESENTATIVE: **Rusty Benson**
   TELEPHONE: **(337) 852-9600**

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

4. LEASE: **G02051**
   AREA: **EC** LATITUDE:
   BLOCK: **286** LONGITUDE:

5. PLATFORM: **C**
   RIG NAME:

6. ACTIVITY:
- [ ] EXPLORATION(POE)
- [X] DEVELOPMENT/PRODUCTION (DOCD/POD)

7. TYPE:
- [ ] HISTORIC INJURY
- [X] REQUIRED EVACUATION **1**
- [ ] LTA (1-3 days)
- [X] LTA (>3 days **1**
- [ ] RW/JT (1-3 days)
- [ ] RW/JT (>3 days)
- [ ] Other Injury
- [ ] FATALITY
- [ ] POLLUTION
- [ ] FIRE
- [ ] EXPLOSION

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

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

- [ ] STRUCTURAL DAMAGE
- [ ] CRANE
- [ ] OTHER LIFTING DEVICE
- [ ] DAMAGED/DISABLED SAFETY SYS.
- [ ] INCIDENT >$25K
- [ ] H2S/15MIN./20PPM
- [ ] REQUIRED MUSTER
- [ ] SHUTDOWN FROM GAS RELEASE
- [ ] OTHER

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

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

9. WATER DEPTH: **186** FT.

10. DISTANCE FROM SHORE: **84** MI.

11. WIND DIRECTION: **NW**
    SPEED: **15** M.P.H.

12. CURRENT DIRECTION:
    SPEED: M.P.H.

13. SEA STATE: **4** FT.

17. DESCRIBE IN SEQUENCE HOW ACCIDENT HAPPENED:

MMS investigators found that an unsafe work practice was used to bleed approximately 1100 psi of pressure from the well C-5 flowline. The unsafe work practice consisted of using a non-standard, poorly designed bleed-off manifold assembly that will rapidly rotate (and come apart) at the base of the tee when the 1/4 turn ball valve is opened to bleed-off pressure in the flowline. The actual rotation is at the top threads of the close nipple that connects the Tee to the 3 port needle valve. The orientation of the 90 degree fitting at the discharge of the ball valve forces the rotation in the counter-clockwise or loosening direction. During the subject accident, after several rotations, the tee rotated free and disconnected from the rest of the assembly. The top portion of the rotating assembly was then ejected under pressure in the upwards direction.

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

The injured person opened the 1/4 turn ball valve to begin the bleed-off process. The force generated by the discharging gas/fluid as it exited the bleed-off mainfold caused a portion of the bleed-off manifold assembly to rotate in a counter-clockwise or loosening direction. The rotating assembly struck the right hand of the injured person causing a severe injury.

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

A contributing factor was the use of a 1/4 turn ball valve in the bleed-off manifold assembly. The 1/4 turn ball valve, in this case, did not allow adequate control of the discharge volume. The use of a needle valve may have prevented the accident from occurring. A needle would have given the operator much more control of the bleed down process.
The use of a bleed-off manifold (1/2in Tee, 1/2in ball valve, 90deg.fitting, gauge) that has the tendency to create a pin-wheel effect when pressure is released also contributed to the accident.

20. LIST THE ADDITIONAL INFORMATION:

Severe corrosion was found on the platform throughout the entire production train and fuel gas system.

21. PROPERTY DAMAGED:

Pressure Gauge

NATURE OF DAMAGE:

Impact to gauge shattered glass and damaged unit.

ESTIMATED AMOUNT (TOTAL): **$250**

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The Lake Charles District recommends OSM issue a Safety Alert which includes the following:

*** Personnel must review the process flow design to determine a means of relieving pressure in a safe and pollution free manner.**

*** If so designed, personnel must relieve pressure through the platform vent scrubber.**

*** Bleed-off manifold assembies should be designed to safely relieve pressure to the atmosphere. The bleed-off manifold assembly must be designed so that the force from discharging fluids will not create a tendency for any part of the assembly to rotate or move in a whipping action.**

*** Personnel must construct the bleed-off manifolds according to design and ensure that no part of the assembly will have a tendency of creating a pin-wheel effect when pressure is released to the atmosphere.**

*** When relieving pressure to the atmosphere, personnel should utilize a valve (i. e. needle valve) that allows good control of the pressure being released.**

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **YES**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

G-110. The contract operator utilized an unsafe work practice to bleed pressure from the flowline of well C-5.

25. DATE OF ONSITE INVESTIGATION:

18-JAN-2008

26. ONSITE TEAM MEMBERS:

Mark Osterman / Scott Mouton /

29. ACCIDENT INVESTIGATION PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

Larry Williamson

APPROVED

DATE: **13-FEB-2008**