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

1. OCCURRED
   DATE: 02-APR-2010   TIME: 1322   HOURS

2. OPERATOR: Northstar Offshore Energy Partner
   REPRESENTATIVE: Chris Hildebrandt
   TELEPHONE: (713) 626-9696
   CONTRACTOR:
   REPRESENTATIVE: Dalvin Warren
   TELEPHONE: (318) 964-2567

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

4. LEASE: 00577
   AREA: EI   LATITUDE: 28.399
   BLOCK: 208   LONGITUDE: -91.29967

5. PLATFORM:
   RIG NAME: SPARTAN 208

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

7. TYPE:
   □ HISTORIC INJURY
   □ REQUIRED EVACUATION
   □ LTA (1-3 days)
   □ LTA (>3 days)
   □ RW/JT (1-3 days)
   □ RW/JT (>3 days)
   □ Other Injury
   □ H2S/15MIN./20PPM
   □ REQUIRED MUSTER
   □ SHUTDOWN FROM GAS RELEASE
   □ OTHER

   □ FATALITY
   □ POLLUTION
   □ FIRE
   □ EXPLOSION
   □ GENERATOR FIRE
   □ HISTORIC BLOWOUT
   □ UNDERGROUND
   □ SURFACE
   □ DEVERTER
   □ SURFACE EQUIPMENT FAILURE OR PROCEDURES
   □ COLLISION
   □ HISTORIC
   □ >$25K
   □ <=$25K
   □ INCIDENT >$25K
   □ H2S/15MIN./20PPM
   □ REQUIRED MUSTER
   □ SHUTDOWN FROM GAS RELEASE
   □ OTHER

6. OPERATION:
   □ PRODUCTION
   □ DRILLING
   □ WORKOVER
   □ COMPLETION
   □ HELICOPTER
   □ 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: 98 FT.

10. DISTANCE FROM SHORE: 48 MI.

11. WIND DIRECTION: SE
    SPEED: 8 M.P.H.

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

13. SEA STATE: 4 FT.
17. INVESTIGATION FINDINGS:

On 4/2/2010 at approximately 1322, the rig electrician called out a fire in the engine room. The outboard generator engine was on fire and the rig lost electrical power. The alarm was sounded and all hands reported to their assigned stations. The fire team reported to the scene and began extinguishing the fire in the outboard engine room with CO2 and Purple-K extinguishers. At approximately 1350, the fire was extinguished and the outboard engine room was ventilated and damage assessed. The stand-by generator was then put on line and electrical power was restored to the facility. At approximately 1445, the USCG and MMS were notified of the incident. There were no personnel injuries or environmental pollution.

The fire resulted in a cover from the air box (the engine's upper chamber) being blown off and flying into a nearby wall. Charring was present inside the air box near the blown-off air box cover. Outside of the blown-off air box cover, the nearby scavenging pump was burnt and the surrounding paint was heat blistered. Both pressure reliefs had been activated in the crankcase (the engine's lower chamber). The air filters on both of the engine's air blowers were fire damaged. Further inspection by an EMD Mechanic on 4/3/10 revealed that seals and gaskets were also damaged.

On 4/7/10, EMD Mechanics partially disassembled the engine and upon examining the left bank blower, found that the quill shaft was broken and that the blower was destroyed. Blower seizure caused the quill shaft to shear, allowing communication between the crankcase and air box. With no blower to force cool air in and hot exhaust air out of the air box, the temperature and pressure built until the crankcase pressure reliefs were activated to result in the air box cover being blown off. Air was able to enter the air box and mix with the hot fumes to create the fire. The blower's drive gear bushings were loose and damaged with no other damage found except that concentrated around the blower. The blower and air box cover on this 1977 model engine were prone to failure due to the engine's service life (approximately 33 years).

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

Seizure of the blower allowed temperature and pressure to build inside the crankcase and air box until the air box cover was blown off. Air was able to enter the air box and mix with the hot fumes to create the fire.

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

This 1977 model engine, blower and air box cover were prone to failure due to its service life (approximately 33 years).

20. LIST THE ADDITIONAL INFORMATION:

Corrective Action:
Increased maintenance or unit replacement may be advised due to the engine's service life. A compression type shutdown may be considered to expedite shutdown in order to
prevent future fires.

21. PROPERTY DAMAGED: NATURE OF DAMAGE:

Property damage includes the blower, an Mechanical, Fire
air box cover, gaskets and seals, various
paint and charring damages.

ESTIMATED AMOUNT (TOTAL): $30,000

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

Due to the specific nature of this incident, the Lafayette District has no
recommendations to report to the Regional Office

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

The operator was in possession of a maintenance record for the unit.

25. DATE OF ONSITE INVESTIGATION:

06-APR-2010

26. ONSITE TEAM MEMBERS:

Tom Basey / Wade Guillotte / Chris Adams / Johnny Serrette /

29. ACCIDENT INVESTIGATION

PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

Elliott S. Smith

APPROVED

DATE: 08-JUN-2010
1. SOURCE OF IGNITION:  **blower failure**

2. TYPE OF FUEL:  
   - [ ] GAS
   - [ ] OIL
   - [ ] DIESEL
   - [ ] CONDENSATE
   - [ ] HYDRAULIC
   - [x] OTHER  **temperature and pressure**

3. FUEL SOURCE:  **Failed blower allowed communication between crankcase and air box**

4. WERE PRECAUTIONS OR ACTIONS TAKEN TO ISOLATE KNOWN SOURCES OF IGNITION PRIOR TO THE ACCIDENT?  **NO**

5. TYPE OF FIREFIGHTING EQUIPMENT UTILIZED:  
   - [x] HANDHELD
   - [ ] WHEELED UNIT
   - [ ] FIXED CHEMICAL
   - [ ] FIXED WATER
   - [ ] NONE
   - [ ] OTHER
☐ OPERATOR REPRESENTATIVE ☐ INJURY
☒ CONTRACTOR REPRESENTATIVE ☐ FATALITY
☐ OTHER ___________________________ ☒ WITNESS

NAME:
HOME ADDRESS:
CITY: STATE:
WORK PHONE:
TOTAL OFFSHORE EXPERIENCE: YEARS
EMPLOYED BY:
BUSINESS ADDRESS:

CITY: STATE:
ZIP CODE: