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

# **ACCIDENT INVESTIGATION REPORT**

	OCCURRED DATE: 06-SEP-2008 TIME: 0400 HOURS  OPERATOR: SPN Resources, LLC REPRESENTATIVE: Eddie Cofield TELEPHONE: (504) 481-1176  CONTRACTOR: Wood Group Production Services REPRESENTATIVE: TELEPHONE:	STRUCTURAL DAMAGE  CRANE  OTHER LIFTING DEVICE  DAMAGED/DISABLED SAFETY SYS.  INCIDENT >\$25K  H2S/15MIN./20PPM  REQUIRED MUSTER  SHUTDOWN FROM GAS RELEASE  OTHER
3.	OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR ON SITE AT TIME OF INCIDENT:	6. OPERATION:
	LEASE: G01608  AREA: SP LATITUDE: 29.063724  BLOCK: 60 LONGITUDE: -88.955981  PLATFORM: C  RIG NAME:	PRODUCTION DRILLING WORKOVER COMPLETION HELICOPTER MOTOR VESSEL PIPELINE SEGMENT NO. OTHER
6.	ACTIVITY: EXPLORATION (POE)  X DEVELOPMENT/PRODUCTION	8. CAUSE:
7.	TYPE:  (DOCD/POD)  TYPE:  HISTORIC INJURY  REQUIRED EVACUATION  LTA (1-3 days)  LTA (>3 days  RW/JT (1-3 days)  RW/JT (>3 days)	EQUIPMENT FAILURE  X HUMAN ERROR EXTERNAL DAMAGE SLIP/TRIP/FALL WEATHER RELATED  LEAK UPSET H20 TREATING OVERBOARD DRILLING FLUID OTHER
	Other Injury  FATALITY	9. WATER DEPTH: <b>192</b> FT.
	POLLUTION X FIRE	10. DISTANCE FROM SHORE: 4 MI.
	LWC HISTORIC BLOWOUT UNDERGROUND	11. WIND DIRECTION:  SPEED: M.P.H.
	SURFACE DEVERTER SURFACE EQUIPMENT FAILURE OR PROCEDURES	12. CURRENT DIRECTION: SPEED: M.P.H.
	COLLISION	13. SEA STATE: <b>2</b> FT.

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On September 6, 2008, at approximately 1600 hours on SPN Resources, Inc.'s Lease OCS-G 01608, South Pass Block 60, C Platform, an explosion and fire occurred inside the generator building during the start-up of a natural gas generator, when the gas vent exhaust line separated, due to loose fittings and vibration, allowing natural gas to vent inside the generator building. At the time of the incident, the gas detector shut-down function was bypassed and was not properly monitored. The Lower Explosive Limit (LEL) tripped seconds before the explosion and fire. Two small flames were extinguished, one on the fuel scrubber and one on the oil cooler motor. There was moderate damage to the generator building and turbine air intake, but there were no injuries or pollution as a result of the incident.

## Sequence of Events:

- 9-5-2008 Employees returned to the platform subsequent to Hurricane Gustav.
- 9-6-2008 Employees were attempting to start the turbine driven generator, and due to low battery voltage causing nuisance alarms and process failures, the package was placed in test. During one of the several attempts to start the unit, the gas vent line separated allowing natural gas to vent into the building. The LEL tripped seconds before the explosion and fire.
- 10-01-2008 At the time of the AI, probable causes were discovered.

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

### Leak:

1) Starter gas vent exhaust line separated.

#### Human Error:

- 1) Wiring was exposed in the generator housing prior to the explosion and fire.
- 2) The gas detector shut down function was by-passed.
- 3) The ventilation fan was inoperable at the time of the incident.
- 19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:
- 20. LIST THE ADDITIONAL INFORMATION:

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21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

Damage to the building and turbine air intake.

Explosion

ESTIMATED AMOUNT (TOTAL):

\$20,000

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The MMS New Orleans District makes no recommendations to the MMS Regional Office of Safety Management (OSM).

- 23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES
- 24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:
  - F-108 At the time of the AI an open conduct cover was found to be loose/open inside the generator enclosure which violates Electrical Installation Codes, API RP 500 and API RP 14F
  - G-111 The exhaust fan for the generator building located in a classified area was determined to be in-operable thus allowing accumulation of gas from the generator causing an explosion and fire.
  - G-111 The generator was not maintained in a safe condition by installation of rubber boot sleeves on the upper and lower starter gas exhaust. The lower rubber boot sleeve came apart allowing the escape of the start gas causing an explosion inside the generator building.
  - P-103 Safety devices (LEL) was not properly monitored during the maintenance/start-up. Due to the improper monitoring, the gas detection system (LEL) shutdown of safety system was not capable of being performed. Safety system was put in by-pass (test) to allow the operator to start the platform generator. The above action resulted in a fire/explosion.
- 25. DATE OF ONSITE INVESTIGATION:

01-OCT-2008

26. ONSITE TEAM MEMBERS:

Keith Barrios / Mark Hasenkampf / Daryl Williams /

29. ACCIDENT INVESTIGATION PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

David J. Trocquet

APPROVED

DATE: 08-APR-2009

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