

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

1. OCCURRED

DATE: **22-APR-2009** TIME: **1400** HOURS

2. OPERATOR: **Nexen Petroleum U.S.A. Inc.**

REPRESENTATIVE: **Bertrand, Johnny**

TELEPHONE: **(337) 735-2502**

CONTRACTOR:

REPRESENTATIVE:

TELEPHONE:

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

4. LEASE: **G00985**

AREA: **EI** LATITUDE:

BLOCK: **259** LONGITUDE:

5. PLATFORM: **B**

RIG NAME:

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

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 **Nylon Sling**

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: **170** FT.

10. DISTANCE FROM SHORE: **58** MI.

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

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

13. SEA STATE: **3** FT.

17. DESCRIBE IN SEQUENCE HOW ACCIDENT HAPPENED:

On April 22, 2009, at approximately 1400 hours, on Nexen Petroleum U.S.A., Inc's Lease OCS-G 00985, Eugene Island 259 B platform, a Spider climber (S-climber) became electrically energized during construction operations causing the nylon strap supporting the S-climber to catch fire. A contract welder (CW) was in an S-climber suspended approximately 24 feet above the plus 10 level repairing well conductor casings. The S-climber was suspended from the deck above and anchored from the S-climber's wire rope to a nylon sling attached to a steel pry bar laid across steel grating and two structural support beams. The CW had a metal box containing welding rods attached to the outside perimeter of the climber. The CW wore a fall protection harness attached to a yo-yo cable supporting system running adjacent to the suspended cables for the S-climber and the wire rope cable used to suspend the conductor casing reinforcement sleeves. Subsequent to completing the weld, the CW stowed his welding electrode assembly inside the welding rod container and began cleaning the welded area with a grinder. Upon completion, the CW stowed his grinder, lifted his welding shield and immediately observed burning debris falling from overhead. The CW looked upwards and observed that the wire ropes supporting his fall protection equipment and the S-climber were glowing red from electrical heat. He immediately pushed the S-climber away from the conductor casing breaking the electrical ground between the two. Subsequent to repositioning, the CW observed a flame burning the nylon sling supporting the S-climber. He safely lowered the S-climber to the plus 10 level while another employee shutdown the welding machine. No injuries or pollution resulted from this incident and only the nylon sling was damaged.

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

The placement of the welding electrode assembly into the welding rod box and electrically energizing the S-climber and associated support ropes caused this incident. The welding rod electrode assembly has a small hole in the protective plastic coating. A screw recessed in this hole holds the electrode assembly together. The welding electrode assembly was stowed in the metal box containing welding rods unknowingly in a position that allowed a rod tip to make contact with the unshielded electrode assembly screw. This provided the path necessary for the electrical current to flow from the electrode assembly throughout the S-climber system eventually heating the wire rope supports and igniting the nylon sling.

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

Improper rigging of the S-climber equipment contributed to the severity of this incident. Contract representatives failed to use the best available technology (BAT) in reference to rigging the S-climber for welding operations from a suspended stage. The S-climber manufacturer provided relevant and precise recommendations specifically tailored for welding operations from the S-climber unit. However, the contractor chose to utilize the nylon sling to a wire rope anchor connection instead of following the manufacturer's recommendation to use a wire rope insulator assembly. Furthermore, the S-climber operator manual includes a recommendation for using arc guards, in addition to the wire rope insulator assembly, for an added level of protection against accidentally contacting the S-climber unit or associated wire rope supports with a welding rod.

20. LIST THE ADDITIONAL INFORMATION:

The Lessee is ultimately responsible for insuring safe construction operations on their facility. The installation of the manufacturer suggested wire rope insulator assembly may have mitigated this incident by eliminating the possibility of the electrical current and subsequent heat transfer to the anchor rope section; in this case the nylon sling. In addition, instead of utilizing a nylon sling as an anchor section, a more durable choice such as wire rope should be considered since it is less susceptible to failures caused by contacting sharp edges, heat stress and chemical deterioration, etc. The installation of the manufacturer suggested arc guards might provide additional protection to prevent future occurrences of this nature. Finally, the welder should stow the welding electrode assembly in a safer location absent of welding rods and other conductive materials.

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

Nylon sling

Burned

ESTIMATED AMOUNT (TOTAL):

\$80

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The MMS Lafayette District office recommends to the MMS Regional Office of Safety Management (OSM) that a Safety Alert be issued emphasizing that all nylon slings in the Gulf of Mexico OCS be used with extreme caution and only in accordance with manufacturer's specifications.

Furthermore, considering the significant numbers of serious accidents reported in recent history involving the use or misuse of nylon slings, we request a study be conducted by MMS to determine the feasibility of totally banning the use of nylon slings throughout the Gulf of Mexico OCS. This type of sling is being used in various operations throughout the Gulf of Mexico OCS. As part of the finding in this investigation it has been identified and determined that a nylon sling was improperly used for rigging during welding operations from an S-climber unit and could have resulted in serious injury or death.

A similar recommendation was made following a serious nylon sling related accident dated November 4, 2007. The following safety alerts also address other nylon sling incidents:

* Safety Alert #279 effective 4/14/2009

* Safety Alert #257 effective 1/10/2008

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

INC G-110 is issued "After the Fact" to document that Nexen Petroleum U.S.A., Inc failed to protect health, safety and the environment by not performing operations in a safe and workmanlike manner as follows: Nexen Petroleum U.S.A., Inc failed to ensure that welding operations from the Spider climber were conducted in a safe manner to protect the equipment and employees by following manufacturer's recommendations to install a wire rope insulator and arc guards designed to prevent undesirable electrical energizing and failure of system safety equipment.

Nexen Petroleum U.S.A., Inc is advised to submit a letter of explanation addressing the aforementioned INC, and its plans for eliminating future incidents of this nature to the MMS Lafayette District Manager.

25. DATE OF ONSITE INVESTIGATION:

29-APR-2009

26. ONSITE TEAM MEMBERS:

29. ACCIDENT INVESTIGATION

PANEL FORMED: NO

Tom Basey / Douglas Frerich /
Johnny Serrette / Leo Dartez /

OCS REPORT:

30. DISTRICT SUPERVISOR:

Elliott S. Smith

APPROVED

DATE: 11-JUN-2009

INJURY/FATALITY/WITNESS ATTACHMENT

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:

OPERATOR REPRESENTATIVE

INJURY

CONTRACTOR REPRESENTATIVE

FATALITY

OTHER _____

WITNESS

NAME:

HOME ADDRESS:

CITY:

STATE:

WORK PHONE:

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