UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

For Public Release

1.	OCCURRED DATE: 05-MAY-2016 TIME: 1339 HOURS	STRUCTURAL DAMAGE X CRANE
2.	OPERATOR: Shell Offshore Inc. REPRESENTATIVE: TELEPHONE: CONTRACTOR: Helmerich & Payne REPRESENTATIVE: TELEPHONE:	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:
4.	LEASE: AREA: AC LATITUDE: BLOCK: 857 LONGITUDE:	X PRODUCTION DRILLING WORKOVER COMPLETION HELICOPTER MOTOR VESSEL
5.	PLATFORM: A(Perdido) RIG NAME:	PIPELINE SEGMENT NO. X OTHER Crane Operations
	ACTIVITY: EXPLORATION(POE) X DEVELOPMENT/PRODUCTION (DOCD/POD)	8. CAUSE: EQUIPMENT FAILURE HUMAN ERROR
7.	TYPE: HISTORIC INJURY X REQUIRED EVACUATION LTA (1-3 days) X LTA (>3 days RW/JT (1-3 days) RW/JT (>3 days) Other Injury	EXTERNAL DAMAGE SLIP/TRIP/FALL WEATHER RELATED LEAK UPSET H2O TREATING OVERBOARD DRILLING FLUID OTHER
	FATALITY POLLUTION FIRE	9. WATER DEPTH: 7835 FT. 10. DISTANCE FROM SHORE: 140 MI.
	EXPLOSION LWC HISTORIC BLOWOUT UNDERGROUND	11. WIND DIRECTION: NNE SPEED: 5 M.P.H.
	SURFACE DEVERTER SURFACE EQUIPMENT FAILURE OR PROCEDURES	12. CURRENT DIRECTION: N SPEED: 2 M.P.H.
	COLLISION HISTORIC >\$25K <=\$25K	13. SEA STATE: 2 FT.
		14.
		15

MMS - FORM 2010 PAGE: 1 OF 10 EV2010R 27-JUL-2016 On May 5, 2016, the H&P 205 crane crew was conducting a blind crane lift from the Safe Welding Area/Production Deck to the pipe rack. The crew on the production deck consisted of a Designated Signal Person (DSP) and two Roustabouts. Two tag lines (one 15 feet 10 inches in length, one 24 feet 8 inches in length, one half inch in size) were being utilized during the lift.

The Crane Operator was given the all clear from the DSP and began maneuvering the cargo box. While the box was being maneuvered, the Injured Person's (IP's) right leg became entangled in the 24 foot tagline and he was pulled in the direction of the handrail. The DSP gave the "all stop" command to the Crane Operator who responded immediately, but the momentum of the cargo box continued and the IP was pulled over the water.

While being pulled over the water, the IP grabbed the tagline and his leg became untangled but the IP could not maintain his grip and slid down the tagline falling 106 feet into the Gulf of Mexico.

IP was able to swim to a ladder attached to the SPAR and climb to a small platform just above the water. The rescue team performed a rope rescue and IP was transported to the medic's office for evaluation and treatment. IP was later transported by Search and Rescue (SAR) helicopter to UTMB in Galveston, Texas, for further evaluation and treatment.

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

Injured person was unaware of foot placement and location of tagline when the blind lift began.

The Designated Signal Person (DSP) failed to ensure all personnel involved in the lift were clear of all hazards prior to and during the blind lift.

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

Lessee Standards & Guidelines Policy (OPS-0055) had limited guidelines relating to tag lines thus was possibly inadequate to prevent this incident.

As per the operator's report, a large portion of the platform personnel have been transferred or demoted recently but due to misinterpretation, some employees were not re-verified for skills at the new job. Re-verification of the rigger qualifications of the IP may have reinforced awareness of tag line safety issues.

Lessee failed to ensure personnel onboard the facility were complying with company policy for H&P Standards and Guidelines Section 29: Taglines - which states "Personnel should not stand in the loop of a tag line."

Lessee failed to ensure all personnel were utilizing a Permit to Work, and Lift Plans as specified in (OPS-0055) prior to conducting any blind lifts. There were several management misunderstandings about the (OPS-0055) requirements of the lift due to location and proximity to the handrails.

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The pre-job meeting of the crane crew failed to include any tagline hazards or mitigation of those hazards.

20. LIST THE ADDITIONAL INFORMATION:

Second employee working nearby tried to assist the IP but failed to prevent the IP from being pulled overboard with the crane load.

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

NONE

NONE

ESTIMATED AMOUNT (TOTAL):

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22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

No recommendations at this time.

- 23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES
- 24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

The primary investigative agency for this incident is the US Coast Guard (USCG) as per the MOA between BSEE and USCG.

BSEE has issued a G-110 Incident of Non-Compliance for the following violations:

At the time of the investigation, it was discovered lessee failed to perform all operations in a safe and workmanlike manner and provide for the preservation and conservation of property and the environment in the following ways:

Lessee failed to ensure rig personnel understood and utilized the revised H&P Standards & Guidelines Policy (OPS-0055) prior to conducting job tasks onboard the facility.

Lessee failed to ensure personnel onboard the facility were complying with company policy for H&P Standards and Guidelines Section 29: Taglines.

Lessee failed to ensure all personnel were utilizing a Permit to Work, and Lift Plan prior to conducting any blind lifts as stated in (OPS-0055).

Lessee failed to re-evaluate Injured Person's skills after being demoted prior to performing the duties of a Roustabout.

The Designated Signal Person (DSP) failed to ensure all personnel involved in the lift were clear of all hazards prior to and during the blind lift.

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25. DATE OF ONSITE INVESTIGATION:

05-MAY-2016

28. ACCIDENT CLASSIFICATION:

For Public Release

AY-2016

26. ONSITE TEAM MEMBERS:

Jacob Trevino / James Holmes /

MINOR

29. ACCIDENT INVESTIGATION PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

John McCarroll

27. OPERATOR REPORT ON FILE: YES

APPROVED

DATE: 26-JUL-0201

Crane/Other Material-Handling Equipment Attachment

Equipment Information

Installation date: 26-MAR-09

Manufacturer: SPARROWS

Manufacture date: 19-AUG-08

Make/Model: ENERGY CRANES / EC 1100-1

Any modifications since manufactured? Describe and include date(s).

What was the maximum lifting capacity at the time of the lift?

Static: 36000 Dynamic:

Was a tag line utilized during the lift? \mathbf{Y}

Were there any known documented deficiencies prior to conducting the lift? If yes, what were the deficiencies?

List specific type of failure that occured during this

incident.(e.g. cable parted, sticking control valve, etc.)

If sling/loose gear failure occurred does operator have a sling/loose gear inspection program in place?

Type of lift:

For crane only:

Type of crane: HYDRAULIC

Boom angle at time of incident: Degrees: 41 Radius: 122

What was load limit at that angle? 23000

Crane equipped with: F

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Which line was in use at time of incident? FIf load line involved, what configuration is the load block: 2 part.

Load Information

What was being lifted? CARGO BOX

Description of what was being lifted (e.g. 10 joints of 2 3/8-inch pipe, ten 500-lb. sacks of sand, 2 employees, etc.)

Cargo Box

Approximate weight of load being lifted: 3600

Was crane/lifting device equipped with an operable weight indicator? Y

Was the load identified with the correct or approximate weight? Y

Where was the lift started, where was it destined to finish, and at what point in the lift did the incident occur? Give specific details (e.g. pipe rack, riser cart, drill floor, etc.)

Cargo box was being lifted from safe welding area to pipe rack.

If personnel was being lifted at the time of this incident, give specific details of lifting device and riding apparatus in use (e.g. 1) crane-personnel basket, 2) air hoist-boatswain chair, other)

No

Were personnel wearing a safety harness? NA

Was a lifeline available and utilized? NA

List property lost overboard.

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Rigger/Operator Information

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Has rigger had rigger training?
If yes, date of last training: 29-APR-13
How many years of rigger experience did rigger have? 4
How many hours was the operator on duty prior to the incident? 12
Was operator on medication when incident occurred?
How many hours was the rigger on duty prior to the incident?
                                                                12
How much sleep did rigger have in the 24 hours preceding this incident?
                                                                            12
Was rigger on medication when incident occurred? N
Were all personnel involved in the lift drug tested immediately following
this incident?
                      Rigger: N
   Operator: N
                                        Other:
While conducting the lift, was line of sight between operator and load ma
  Y
Does operator wear glasses or contact lenses? N
If so, were glasses or contacts in use at time of the incident? N
Does operator wear a hearing aid?
If so, was operator using hearing aid at time of the incident? N
What type of communication system was being utilized between operator and
rigger at time of this incident?
  RADIO/VHF
For crane only:
What crane training institution did crane operator attend?
  SHELL ROBERTS TRAINING CENTER
Where was institution located? ROBERT LA.
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Was operator qualified on this type of crane? Y

How much actual operational time did operator have on this particular crane involved in this incident?

Years: 4 Months 3

List recent crane operator training dates.

22-JAN-2016

For other material-handling equipment only:

Has operator been trained to operate the lifting device involved in the incident? $^{\mathbf{N}}$ How many years of experience did operator have operating the specific type of

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Inspection/Maintenance Information

For crane only:

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Is the crane involved classified as Heavy, Moderate or Infrequent use.
Was pre-use inspeciton conducted?
For the annual/quarterly/monthly crane inspections, please fill out the following
information:
What was the date of the last inspection? 27-APR-16
Who performed the last inspection?
Was inspection conducted in-house or by a 3rd party?
Who qualified the inspector?
                               SPARROWS TRAINING
Does operators' policy require load or pull test prior to heavy lift? N
Which type of test was conducted prior to heavy lift?
                                        Load test:
Date of last pull test:
Results:
 If fail explain why:
 Test Parameters: Boom angle:
                                               Radius:
 What was the date of most recent crane maintenance performed? 27-APR-16
 Who performed crane maintenance? (Please clarify persons name or company name.)
   THIRD PARTY
 Was crane maintenance performed in-house or by a third party? TP
  What type of maintenance was performed?
  monthly, yearly
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For other material-handling equipment only:

Was equipment visually inspected before the lift took place?

What is the manufacture's recommendation for performing periodic inspection on the equipment involved in this incident?

Safety Management Systems

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Does the company have a safety management program in place? N
Does the company's safety management program address crane/other material-
handling equipment operations?
  N
Provide any remarks you may have that applies to the company's safety management
program and this incident?
Did operator fill out a Job Safety Analysis (JSA) prior to job being performed?
Did operator have an operational or safety meeting prior to job being performed?
  Y
What precautions were taken by operator before conducting lift resulting in ir
Procedures in place for crane/other material-handling equipment activities:
 Did operator have procedures written?
 Did procedures cover the circumstances of this incident?
 Was a copy available for review prior to incident?
Were procedures available to MMS upon request?
Is it documented that operator's representative reviewed procedures before conducting lift?
     N
Additional observations or concerns:
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